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UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of **CERTAIN ELECTRONIC DEVICES, INCLUDING MOBILE PHONES, TABLETS, LAPTOPS, COMPONENTS THEREOF, AND PRODUCTS CONTAINING THE SAME**	**Inv. No. 337-TA-1376**

INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDED DETERMINATION ON REMEDY AND BOND

Administrative Law Judge Cameron Elliot

(November 15, 2024)

Pursuant to the Notice of Investigation and Rule 210.42(a) of the Rules of Practice and Procedure of the United States International Trade Commission, this is my Initial Determination in the matter of *Certain Electronic Devices, Including Mobile Phones, Tablets, Laptops, Components Thereof, And Products Containing The Same*, Investigation No. 337-TA-1376.

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TABLE OF CONTENTS **Page**

I. INTRODUCTION 1

A. Procedural Background 1

B. The Parties 3

1. Complainant 3

2. Respondents 3

C. The Asserted Patents and Claims 4

D. Products at Issue 5

1. Domestic Industry Products 5

2. Accused Products 6

3. Redesigned Devices 7

II. STANDARDS OF LAW 7

A. Claim Construction 7

B. Infringement 10

C. Domestic Industry 13

1. Technical Prong 13

2. Economic Prong 15

D. Invalidity 16

1. 35 U.S.C. § 101 16

2. 35 U.S.C. § 102 16

3. 35 U.S.C. § 103 17

III. IMPORTATION AND STATUTORY AUTHORITY 19

IV. U.S. PATENT NO. 9,313,178 19

A. Overview 19

B. Level of Ordinary Skill in the Art 21

C. Claims at Issue 21

D. Claim Construction 22

1. "detect content encryption key rotation boundaries" 22

2. "content encryption key(s)" 23

E. Infringement 23

1. Direct Infringement 23

2. Indirect Infringement 38

3. Representativeness 40
4. Redesigned Devices 42
F. Domestic Industry – Technical Prong 43
G. Validity 44
1. 35 U.S.C. § 101 – Subject Matter Eligibility 44
2. 35 U.S.C. § 103 – Obviousness 47
V. U.S. PATENT NO. 10,972,654 59
A. Overview 59
B. Level of Ordinary Skill in the Art 60
C. Priority Date 61
D. Claims at Issue 61
E. Claim Construction 62
F. Infringement and Domestic Industry Technical Prong 62
G. Representativeness 66
H. Validity 67
1. 35 U.S.C. § 102 – Anticipation 68
2. 35 U.S.C. § 103 – Obviousness 78
3. 35 U.S.C. § 101 – Subject Matter Eligibility 86
VI. LICENSE 92
VII. DOMESTIC INDUSTRY ECONOMIC PRONG 96
VIII. CONCLUSIONS OF LAW 98
IX. RECOMMENDED DETERMINATION ON REMEDY AND BOND 98
X. INITIAL DETERMINATION AND ORDER 100

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TABLE OF ABBREVIATIONS

CDX	Complainants' Demonstrative Exhibit
CIB	Complainants' Revised Initial Post-Hearing Brief
CPB	Complainants' Pre-Hearing Brief
CPX	Complainants' Physical Exhibit
CRB	Complainant's Reply Post-Hearing Brief
CX	Complainants' Exhibit
Tr.	Hearing Transcript
JX	Joint Exhibit
RDX	Respondents' Demonstrative Exhibit
RIB	Respondents' Initial Post-Hearing Brief
RPB	Respondents' Pre-Hearing Brief
RPX	Respondents' Physical Exhibit
RRB	Respondents' Reply Post-Hearing Brief
RX	Respondents' Exhibit

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I. INTRODUCTION

A. Procedural Background

On October 12, 2023, Complainants Ericsson AB and Telefonaktiebolaget LM Ericsson (collectively, "Ericsson") filed the complaint underlying this investigation. *See* 88 Fed. Reg. 46182 (July 19, 2023); EDIS Doc. ID 805802 (complaint).[1] The complaint alleged respondents Motorola Mobility LLC, Lenovo (United States) Inc., Lenovo Group Limited, Lenovo (Shanghai) Electronics Technology Co., Ltd., Lenovo Beijing Co., Limited, Lenovo PC HK Limited, Lenovo Information Products (Shenzhen) Co. Ltd., and Motorola (Wuhan) Mobility Technologies Communication Company Limited import or sell in connection with an importation certain electronic devices, such as mobile phones (including smartphones), tablet computers, laptops (including Chromebooks), components thereof, and products containing the same that infringe one or more claims of U.S. Patent Nos. 7,151,430 ("430 Patent"), 9,313,178 ("178 Patent"), 9,509,273 ("273 Patent"), 10,972,654 ("654 Patent"), and 11,122,313 ("313 Patent"), (collectively, the "Asserted Patents").

By publication of a notice in the *Federal Register* on November 17, 2023, the U.S. International Trade Commission ordered that:

> Pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, an investigation be instituted to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain products identified in paragraph (2) by reason of infringement of one or more of claims 2-8, 11, and 13-18 of the '430 patent; claims 1-4, 7-10, 12-14, 16, and 18 of the '273 patent; claims 1-5 and 16-18 of the '178 patent; claims 1-4, 6, 11-14, and 16 of the '313 patent; and claims 1, 3, 9, 10, 15, and 16 of the '654 patent, and whether an industry in the United States exists as required by subsection (a)(2) of section 337[.]

88 Fed. Reg. 80337-338 at 337 (Nov. 17, 2023) (EDIS Doc. ID 809248).

[1] Supplements to the Ericsson Complaint were filed on October 31, 2023 (EDIS Doc. ID 807337), and on November 9, 2023 (EDIS Doc. ID 808184).

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On November 16, 2023, this investigation was reassigned to Administrative Law Judge Doris Johnson Hines. *See* EDIS Doc. ID 808723. On November 22, 2023, this investigation was reassigned to me. *See* EDIS Doc. ID 809158.

On December 5, 2023, Order No. 6 set the target date as March 17, 2025. *See* Order No. 6 at 2. Order No. 7 set a *Markman* hearing date of March 19, 2024, and the evidentiary hearing for August 19, 2024 through August 23, 2024. *See* Order No. 7 at 1.

The *Markman* hearing was canceled on March 6, 2024, and the parties' claim construction disputes were resolved on March 13, 2024. *See* Order Nos. 23, 25.

On May 31, 2024, Ericsson moved to terminate the investigation as to all asserted claims of the 430 Patent, claims 1-5 of the 178 Patent, and claims 1-4 and 6 of 313 Patent. *See* EDIS Doc. ID 822711. That motion was granted on June 3, 2024. *See* Order No. 29, *unreviewed by* Comm'n Notice, EDIS Doc. ID 824385.

On June 19, 2024, Ericsson and Lenovo Group Limited ("LGL") jointly moved to terminate the investigation as to LGL. *See* EDIS Doc. ID 824013. The motion was granted on June 20, 2024. *See* Order No. 30, *unreviewed by* Comm'n Notice, EDIS Doc. ID 825174.

On June 28, 2024, Ericsson filed an unopposed motion for summary determination that the economic prong of the domestic industry requirement has been satisfied in this investigation. *See* EDIS Doc. IDs 824185, 824197. The motion was granted-in-part on July 12, 2024. *See* Order No. 32, *unreviewed by* Comm'n Notice, EDIS Doc. ID 829390.

On July 15, 2024, Ericsson moved to terminate the investigation as to all asserted claims of the 313 Patent, claim 18 of the 178 Patent, and claims 1-3, 7-10, 12-14, and 16 of the 273 Patent. *See* EDIS Doc. ID 825890. The motion was granted on July 15, 2024. *See* Order No. 34, *unreviewed by* Comm'n Notice, EDIS Doc. ID 828480.

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On August 9, 2024, Ericsson moved to withdraw the 273 Patent from the investigation. *See* EDIS Doc. ID 829119. The motion was granted on August 9, 2024. *See* Order No. 39, *unreviewed by* Comm'n Notice, EDIS Doc. ID 831734.

A pre-hearing conference was held on August 19, 2024, and an evidentiary hearing was held from August 19 to August 22, 2024.

On October 16, 2024, Respondents moved (1376-048) to strike certain portions of Ericsson's posthearing reply brief, and as explained below that motion is denied. As of the date of this initial determination, no motions remain pending.

B. The Parties

1. Complainant

Telefonaktiebolaget LM Ericsson ("LM Ericsson") is a corporation organized and existing under the laws of the Kingdom of Sweden with its principal place of business at Torshamnsgatan 21, Kista, 164 83, Stockholm, Sweden. CIB at 8. LM Ericsson is the sole owner by assignment of all right, title, and interest in the 654 Patent. *Id.*; JX-0009.0021 (654 Patent Assignment).

Ericsson AB is a corporation organized and existing under the laws of the Kingdom of Sweden, having its principal place of business at Torshamnsgatan 23, Kista, SE-164 40 Stockholm, Sweden. CIB at 8. Ericsson AB is the sole owner by assignment of all right, title, and interest in the 178 Patent. *Id.*; JX-0003.0003 (178 Patent Assignment).

2. Respondents

The Respondents are Motorola Mobility LLC and Motorola (Wuhan) Mobility Technologies Communication Co., Ltd. (collectively, "Motorola"); and Lenovo (United States) Inc., Lenovo (Shanghai) Electronics Technology Co., Ltd., Lenovo Beijing Co., Limited, Lenovo PC HK

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Limited, and Lenovo Information Products (Shenzhen) Co. Ltd. (collectively, "Lenovo"). RIB at 7.

Motorola Mobility LLC is a limited liability company organized and existing under the laws of the state of Delaware, with its principal place of business located at 222 W. Merchandise Mart Plaza, Suite 1800, Chicago, Illinois 60654. *See* Response to the Complaint at 7. Motorola (Wuhan) Mobility Technologies Communication Company Limited is a corporation operating under the laws of China with its principal place of business at 19 Gaoxin 4th Road, Donghu New Technology Development Zone Hubei 430205 Wuhan, China. *See id.* at 8-9. Both Motorola respondents are indirect wholly-owned subsidiaries of former respondent Lenovo Group Limited. *See id.* at 7-9.

Lenovo (United States), Inc. is a corporation organized under the laws of the state of Delaware. *See* Response to the Complaint at 7. Lenovo (Shanghai) Electronics Technology Co. Ltd. is a corporation operating under the laws of China with its principal place of business at Part 304-305, Building 4, No. 222 Meiyue Road Pilot Free Trade Zone, Pudong New District Shang Hai Shi 200131 Shanghai. *See id.* at 9. Lenovo Beijing Co., Limited is a corporation operating under the laws of China with its principal place of business at 6 Chuang ye Road, Haidian District Beijing 100085, China. *See id.* Lenovo PC HK Limited is a corporation operating under the laws of China with its principal place of business at 23rd Floor, Lincoln House Taikoo Place 979 King's Road, Hong Kong. *See id.* at 10. Lenovo Information Products (Shenzhen) Co. Ltd. is a corporation operating under the laws of China with its principal place of business at Fuitan Trade Zone, ISH2 Building, No. 3 Guanglan Road 518038 Shenzhen. *See id.*

C. The Asserted Patents and Claims

The 178 Patent, titled "Method And System For Secure Over-The-Top Live Video Delivery," issued on April 12, 2016 to Kevin J. Ma, Robert Hickey, and Paul Tweedale. JX-0001

[redacted]

(178 Patent). Ericsson AB owns, by assignment, all right, title, and interest in and to the 178 Patent. JX-0003 (178 Patent Assignments). The three inventors named above assigned their rights in the 178 Patent to Azuki Systems, Inc. *See id.* Azuki Systems, Inc. then assigned all of its rights in the 178 Patent to Ericsson AB. *Id.*

The 654 Patent, titled "Controlling Image Capturing Setting Of Camera Based On Direction Object Is Dragged Along Touch Screen," issued on April 6, 2021, to Woo Chang Chun, Jin Sang Yun, and Ja Won Koo. JX-0007 (654 Patent). LM Ericsson owns, by assignment, all right, title, and interest in and to the 654 Patent. JX-0009 (654 Patent Assignments). The three inventors of the 654 Patent assigned their rights in the 654 Patent to LG Electronics, Inc. ("LG"). *See Id.* LG assigned its rights to LM Ericsson. *Id.*

The following patent claims are presently at issue in this investigation, according to Ericsson's briefing:

Asserted Patent	Infringement Claims	Domestic Industry Claims
9,313,178	16, 17	16, 17
10,972,654	1, 3, 16	1, 3, 16

See CIB at 15, 24, 38-40, 60, 68.

D. Products at Issue

The products at issue are "mobile phones, tablet computers, laptop computers, components thereof and products containing the same." 88 Fed. Reg. 80337-338.

1. Domestic Industry Products

The asserted DI Products are Samsung's Galaxy S21, Galaxy S22, Galaxy S23, and Galaxy S24 families of smartphones. CIB at 13.

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2. Accused Products

a) 178 Patent Accused Products

The accused products for the 178 Patent (collectively, "178 Patent Accused Products") are identified in Exhibit 1 to Ericsson's opening posthearing brief and include:

- Smartphones including the Moto G line of phones, the Edge line, the ThinkPhone, and the Razr line ("178 Patent Accused Phones");
- Tablet computers such as the Tab M10, the Tab P11, the Tab P12, the Tab M9, the Yoga Tab 11, the Tab M8, the Tab M7, the Tab Extreme and the Tab K10 ("178 Patent Accused Tablets");
- Laptop computers including the ThinkPad line, the LOQ Gaming Laptops, the Yoga Series, the IdeaPad series, the Slim series, and the Legion series ("Accused Windows Laptops"); and
- Chromebook computers, such as the IdeaPad Flex 3i Chromebook, the IdeaPad Slim 3 Chromebook, the Chromebook 3 MediaTek, the Chromebook Duet 3, the Chromebook Duet 5 and the Chromebook Gen 3 AMD ("Accused Chromebooks").

CIB at 12-13; *see also id.* at Ex. 1.

b) 654 Patent Accused Products

The accused products for the 654 Patent (collectively, "654 Patent Accused Products") are identified in Exhibit 1 to Ericsson's opening posthearing brief and include:

- The Moto G line of phones, the Edge line, the ThinkPhone, and the Razr line ("Motorola's Accused Products" for the 654 Patent); and

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- Tablet computers such as the Tab M10, the Tab P11, the Tab P12, the Tab M9, the Yoga Tab 11, the Tab M8, the Tab M7, the Tab Extreme and the Tab K10 ("Lenovo's Accused Products" for the 654 Patent).

CIB at 13; *see also id.* at Ex. 1.

3. Redesigned Devices

In addition to the articles shown above, Respondents redesigned two products, the Motorola Moto G Stylus 5G and Lenovo Chromebook Duet 3 (the "Redesigned Devices"), which they allege do not infringe any claim of the 178 Patent (although at one point they suggest that all "ChromeOS" devices qualify as redesigned). *See* RIB at 49, 51; RPB at 86. The parties have stipulated that these products satisfy the *Oligosaccharides* standard, and they will therefore be adjudicated. EDIS Doc. ID 829482 (citing *Certain Human Milk Oligosaccharides and Methods of Producing the Same*, Inv. No. 337-TA-1120, Comm'n Op. at 18 (June 8, 2020)).

II. STANDARDS OF LAW

A. Claim Construction

"The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims." *Embrex, Inc. v. Serv. Eng'g Corp.*, 216 F.3d 1343, 1347 (Fed. Cir. 2000). Although most of the disputed claim terms were construed in an earlier order, some of the issues presented below are only resolvable with additional claim construction.

Claim construction focuses on the intrinsic evidence, which consists of the claims themselves, the specification, and the prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc); *see also Markman v. Westview Instr., Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc). As the Federal Circuit in *Phillips* explained, courts must analyze each of these components to determine the "ordinary and customary meaning of a claim term" as

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understood by a person of ordinary skill in art at the time of the invention. 415 F.3d at 1313. "Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001).

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). "Quite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular claims terms." *Id.* at 1314; *see Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) ("In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to 'particularly point [ ] out and distinctly claim [ ] the subject matter which the patentee regards as his invention."). The context in which a term is used in an asserted claim can be "highly instructive." *Phillips*, 415 F.3d at 1314. Additionally, other claims in the same patent, asserted or unasserted, may also provide guidance as to the meaning of a claim term. *Id.* "Courts do not rewrite claims; instead, we give effect to the terms chosen by the patentee." *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1364 (Fed. Cir. 1999). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). "[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Id.* at 1316.

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In addition to the claims and the specification, the prosecution history should be examined, if in evidence. *Phillips*, 415 F.3d at 1317; *see Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004). The prosecution history can "often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Phillips*, 415 F.3d at 1317; *see Chimie v. PPG Indus. Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) ("The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution.").

When the intrinsic evidence does not establish the meaning of a claim, then extrinsic evidence (*i.e.*, all evidence external to the patent and the prosecution history, including dictionaries, inventor testimony, expert testimony, and learned treatises) may be considered. *Phillips*, 415 F.3d at 1317. Extrinsic evidence is generally viewed as less reliable than the patent itself and its prosecution history in determining how to define claim terms. *Id.* "The court may receive extrinsic evidence to educate itself about the invention and the relevant technology, but the court may not use extrinsic evidence to arrive at a claim construction that is clearly at odds with the construction mandated by the intrinsic evidence." *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 977 (Fed. Cir. 1999).

The construction of a claim term is generally guided by its ordinary meaning. However, courts may deviate from the ordinary meaning when: (1) "the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention;" or (2) "the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history." *Edwards Lifesciences LLC v. Cook*

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Inc., 582 F.3d 1322, 1329 (Fed. Cir. 2009); *see Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 967 (Fed. Cir. 2022); *GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) ("the specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal."); *Omega Eng'g, Inc, v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) ("[W]here the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender."); *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319, 1325 (Fed. Cir. 2002) ("The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution."). Nevertheless, there is a "heavy presumption that a claim term carries its ordinary and customary meaning." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citations omitted). The standard for deviating from the plain and ordinary meaning is "exacting" and requires "a clear and unmistakable disclaimer." *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1366-67 (Fed. Cir. 2012); *see Epistar Corp. v. Int'l Trade Comm'n*, 566 F.3d 1321, 1334 (Fed. Cir. 2009) (requiring "expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope" to deviate from the ordinary meaning) (citation omitted).

B. Infringement

"An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." *Markman*, 52 F.3d at 976. A patentee may prove infringement either literally or under the doctrine of equivalents. Infringement of either sort must be proven by a preponderance of the evidence. *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988). A preponderance of the evidence standard "requires

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proving that infringement was more likely than not to have occurred." *Warner-Lambert Co. v. Teva Pharm. USA, Inc.*, 418 F.3d 1326, 1341 n.15 (Fed. Cir. 2005).

Literal infringement is a question of fact. *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). "To establish literal infringement, every limitation set forth in a claim must be found in an accused product, exactly." *Microsoft Corp. v. GeoTag, Inc.*, 817 F.3d 1305, 1313 (Fed. Cir. 2016) (quoting *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed. Cir. 1995). If any claim limitation is absent, there is no literal infringement of that claim as a matter of law. *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000).

Doctrine of equivalents is also a form of infringement. One rubric for evaluating if a claimed feature is not literally, but nonetheless equivalent to, a claimed feature is known as the function-way-result test. Under this test, the accused feature is equivalent to the claim limitation when "it performs substantially the same function in substantially the same way to obtain the same result." *Duncan Parking Techs., Inc. v. IPS Grp., Inc.*, 914 F.3d 1347, 1362 (Fed. Cir. 2019) (quoting *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950)). Another is known as the insubstantial differences test, where "[a]n element in the accused device is equivalent to a claim limitation if the only differences between the two are insubstantial." *Voda v. Gordia Corp.*, 536 F.3d 1311, 1326 (Fed. Cir. 2008) (citing *Honeywell Int'l Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1139 (Fed. Cir. 2004)). The Supreme Court has further instructed, "the proper time for evaluating equivalency . . . is at the time of infringement, not at the time the patent was issued." *Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 37 (1997).

In addition to direct infringement, Section 271 of the Patent Act defines two categories of indirect infringement, inducement of infringement and contributory infringement. 35 U.S.C. § 271. For indirect infringement violations under Section 337, the direct infringement element may occur

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after importation, so long as all the other elements of indirect infringement are met at the time of importation. *See Certain Vision-Based Driver Assistance System Cameras and Components Thereof*, Inv. No. 337-TA-907, Comm'n Op. at 19 (Dec. 1, 2015) (citing *Suprema, Inc. v. Int'l Trade Comm'n*, 796 F.3d 1338, 1348 (Fed. Cir. 2015)). It is well settled that "[a]bsent direct infringement of the patent claims, there can be neither contributory infringement ... nor inducement of infringement." *Met–Coil Sys. Corp. v. Korners Unltd., Inc.*, 803 F.2d 684, 687 (Fed.Cir.1986) (citations omitted).

As to the first category, "[w]hoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b); *see DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (en banc) ("To establish liability under section 271(b), a patent holder must prove that once the defendants knew of the patent, they actively and knowingly aided and abetted another's direct infringement.") (citations omitted). "The mere knowledge of possible infringement by others does not amount to inducement; specific intent and action to induce infringement must be proven." *Id.* (citations omitted). A defendant's belief regarding patent validity is not a defense to a claim of induced infringement. *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920 (2015). A defendant's willful blindness on the question of infringement will satisfy the knowledge requirement. *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 765, 768-771 (2011). The requisite intent to induce infringement "may be established through circumstantial evidence" and "'may be inferred from all of the circumstances.'" *See Broadcom Corp. v. Qualcomm, Inc.*, 543 F.3d 683, 699 (Fed. Cir. 2008) (citing *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293 (Fed. Cir. 2006); *Water Techs. Corp. v. Claco, Ltd.*, 850 F.2d 660, 669 (Fed. Cir. 1988)).

As to the second category, "a party who sells a component with knowledge that the component is especially designed for use in a patented invention, and is not a staple article of

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commerce suitable for substantial noninfringing use, is liable as a contributory infringer." *Wordtech Sys., Inc. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1316 (Fed. Cir. 2010). Contributory infringement is premised upon a finding that: (1) the entity sells, offers to sell, or imports into the United States a component of a product; (2) the component has no substantial non-infringing use; (3) the component constitutes a material part of the claimed invention; (4) the entity was aware of the patent and knew that the product may be covered by a claim of the patent; and (5) the use of the component in the product directly infringes the claim. *See Certain Gaming & Entm't Consoles, Related Software, & Components Thereof*, Inv. No. 337-TA-752, Initial Determination (Remand) at 7-8 (Mar. 22, 2013) (citing 35 U.S.C. § 271(c); *Arris Group v. British Telecomm. PLC*, 639 F.3d 1368, 1376 (Fed. Cir. 2011)), *non-reviewed*, Notice (May 23, 2013). As with inducement, willful blindness on the question of infringement will satisfy the knowledge requirement. *Global-Tech*, 563 U.S. at 765, 768-771.

C. Domestic Industry

In an investigation based on a claim of patent infringement, section 337 requires that an industry in the United States, relating to the articles protected by the patent, exist or be in the process of being established. 19 U.S.C. § 1337(a)(2). Under Commission precedent, the domestic industry requirement has been divided into (i) a "technical prong" (which requires articles covered by the Asserted Patent) and (ii) an "economic prong" (which requires certain levels of activity with respect to the protected articles or patent itself). *See Certain Video Game Systems and Controllers*, Inv. No. 337-TA-743, Comm'n Op. at 6-7 (April 14, 2011) ("*Video Game Systems*").

1. Technical Prong

The technical prong of the domestic industry requirement is satisfied when the complainant in a patent-based section 337 investigation establishes that it is practicing or exploiting the patents

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at issue. *See* 19 U.S.C. §§ 1337 (a)(2), (3); *Certain Microsphere Adhesives, Process for Making Same and Prods. Containing Same, Including Self-Stick Repositionable Notes*, Inv. No. 337-TA-366, Comm'n Op. at 8 (U.S.I.T.C. Jan. 16, 1996). "In order to satisfy the technical prong of the domestic industry requirement, it is sufficient to show that the domestic industry practices any claim of that patent, not necessarily an asserted claim of that patent." *Certain Ammonium Octamolybdate Isomers*, Inv. No. 337-TA-477, Comm'n Op. at 55 (U.S.I.T.C. Aug. 28, 2003). Historically, the Commission permits the complainant's products, and those of its licensees, to be considered for technical prong purposes. *See Certain Magnetic Tape Cartridges and Components Thereof*, Inv. No. 337-TA-1058, Comm'n Op. at 28-29 (April 9, 2019).

The test for claim coverage for the purposes of the technical prong of the domestic industry requirement is the same as that for infringement. *See Certain Doxorubicin and Preparations Containing Same*, Inv. No. 337-TA-300, Initial Determination at 109 (U.S.I.T.C. May 21, 1990), *aff'd*, Views of the Commission at 22 (U.S.I.T.C. Oct. 31, 1990); *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003). "First, the claims of the patent are construed. Second, the complainant's article or process is examined to determine whether it falls within the scope of the claims." *Certain Doxorubicin and Preparations Containing Same*, Inv. No. 337-TA-300, Initial Determination at 109. As with infringement, the technical prong of the domestic industry can be satisfied either literally or under the doctrine of equivalents. *Certain Dynamic Sequential Gradient Devices and Component Parts Thereof*, Inv. No. 337-TA-335, ID at 44, Pub. No. 2575 (U.S.I.T.C. May 15, 1992). In short, the patentee must establish by a preponderance of the evidence that the domestic product practices one or more claims of the patent.

[redacted]

2. Economic Prong

The "economic prong" of the domestic industry requirement is satisfied when there exists in the United States, in connection with products practicing at least one claim of the patent at issue: (A) significant investment in plant and equipment; (B) significant employment of labor or capital; or (C) substantial investment in its exploitation, including engineering, research and development, and licensing. 19 U.S.C. § 1337(a)(3). Establishment of the "economic prong" is not dependent on any "minimum monetary expenditure" and there is no need for complainant "to define the industry itself in absolute mathematical terms." *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Comm'n Op. at 25-26 (May 16, 2008) ("*Stringed Instruments*"). However, a complainant must substantiate the significance of its activities with respect to the articles protected by the patent. *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 30 (Feb. 17, 2011) ("*Imaging Devices*"). Further, a complainant can show that its activities are significant by showing how those activities are important to the articles protected by the patent in the context of the company's operations, the marketplace, or the industry in question. *Id.* at 27-28. That significance, however, must be shown in a quantitative context. *Lelo Inc. v. Int'l Trade Comm'n*, 786 F.3d 879, 886 (Fed. Cir. 2015). The Federal Circuit noted that when the ITC first addressed this requirement, it found the word "'significant' denoted 'an assessment of the *relative* importance of the domestic activities.'" *Id.* at 883-4 (internal citation omitted) (emphasis added). In general, "[t]he purpose of the domestic industry requirement is to prevent the ITC from becoming a forum for resolving disputes brought by foreign complainants whose only connection with the United States is ownership of a U.S. patent." *Certain Battery-Powered Ride-On Toy Vehicles*, Inv. No. 337-TA-314, USITC Pub. No. 2420, Initial Determination at 21 (Aug. 1991); *see Certain Vacuum Insulated Flasks and Components Thereof*, Inv. No. 337-

[redacted]

TA-1216, Notice at 3-4 (Oct. 21, 2021) ("Given the nature and extent of [complainant's] investments in plant and equipment as a whole, [complainant] is not a mere importer.").

D. Invalidity

1. 35 U.S.C. § 101

Section 101 states:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101. To determine patent eligibility under § 101, courts apply the two-step *Alice* test and first "determine whether the claims at issue are directed to a patent-ineligible concept," and then if so, "examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice Corp. Pty. v. CLS Bank Intern.*, 573 U.S. 208, 217-18, 221 (2014). "The 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.'" *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (citing *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1375 (Fed. Cir. 2016)). To save a patent at the second step, an inventive concept must be evident in the claims. *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151-52 (Fed. Cir. 2016).

2. 35 U.S.C. § 102

Pursuant to 35 U.S.C. § 102, a patent claim is invalid as anticipated if:

> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant;
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States;

[redacted]

35 U.S.C. § 102 (pre-AIA). "A patent is invalid for anticipation if a single prior art reference discloses each and every limitation of the claimed invention. Moreover, a prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference." *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (citations omitted); *see Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1354 (Fed. Cir. 2012). "A century-old axiom of patent law holds that a product 'which would literally infringe if later in time anticipates if earlier.'" *Upsher-Smith Labs., Inc. v. Pamlab, L.L.C.*, 412 F.3d 1319, 1322 (Fed. Cir. 2005) (citing *Schering Corp.*, 339 F.3d at 1322). Anticipation, and all other grounds of patent invalidity, must be proved by clear and convincing evidence. *Microsoft Corp. v. I4I Ltd. P'ship*, 564 U.S. 91, 95, (2011).

3. 35 U.S.C. § 103

Section 103 of the Patent Act states:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. § 103(a) (pre-AIA). "Obviousness is a question of law based on underlying questions of fact." *Scanner Techs. Corp. v. ICOS Vision Sys. Corp. N.V.*, 528 F.3d 1365, 1379 (Fed. Cir. 2008). The underlying factual determinations include: "(1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art, and (4) objective indicia of non-obviousness." *Id.* (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)). These factual determinations are often referred to as the "*Graham* factors."

[redacted]

The critical inquiry in determining the differences between the claimed invention and the prior art is whether there is a reason to combine the prior art references. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418-21 (2007). In *KSR*, the Supreme Court rejected the Federal Circuit's rigid application of the teaching-suggestion-motivation test. While the Court stated that "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does," it described a more flexible analysis:

> Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue . . . . As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

Id. at 418. Since *KSR*, the Federal Circuit has announced that, where a patent challenger contends that a patent is invalid for obviousness based on a combination of prior art references, "the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device . . . and would have had a reasonable expectation of success in doing so." *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007); *see KSR*, 550 U.S. at 399 ("The proper question was whether a pedal designer of ordinary skill in the art, facing the wide range of needs created by developments in the field, would have seen an obvious benefit to upgrading Asano with a sensor."). In addition to demonstrating that a reason exists to combine prior art references, the challenger must demonstrate that the combination of prior art references discloses all of the limitations of the claims. *Velander v. Garner*, 348 F.3d 1359, 1363 (Fed. Cir. 2003) (explaining that a requirement for a

[redacted]

finding of obviousness is that "all the elements of an invention are found in a combination of prior art references").

An obviousness determination should also include a consideration of how "secondary considerations" such as "commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Graham*, 338 U.S. at 17-18. "For [such] objective evidence to be accorded substantial weight, its proponent must establish a nexus between the evidence and the merits of the claimed invention." *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995); *see Merck & Cie v. Gnosis S.P.A.*, 808 F.3d 829, 837 (Fed. Cir. 2015). "Where the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention." *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011); *see Apple Inc. v. Samsung Elecs. Co., Ltd.*, 839 F.3d 1034, 1054-1056 (Fed. Cir. 2016).

III. IMPORTATION AND STATUTORY AUTHORITY

The parties stipulated that the Accused Products have been imported, and there is no dispute over the Commission's statutory authority. *See* JX-0013C.

IV. U.S. PATENT NO. 9,313,178

A. Overview

The 178 Patent is directed to the secure transmission of protected content over a network such as the Internet. *See* 178 Patent at 1:18-42. The content can be divided into segments with each segment encrypted using a different "encryption key." *See id.* at 2:15-61. These encryption keys are stored on a license server that can be accessed by client devices, including smartphones and computers. *See id.* at 1:43-65, 4:59-5:4. When a client device wants to access certain content, it sends requests to the license server and receives licenses in return, each of which includes the keys needed to decrypt and view one or more segments of the content. *See id.* at 2:15-30. The license

[redacted]

requests are sent as the "boundary" between content segments in playback are approached, to ensure the client device has the key it needs to view each segment before that segment is displayed for the user, thus avoiding interruptions in playback. *See id.* at 2:15-30, 9:20-46. The process is iterative:

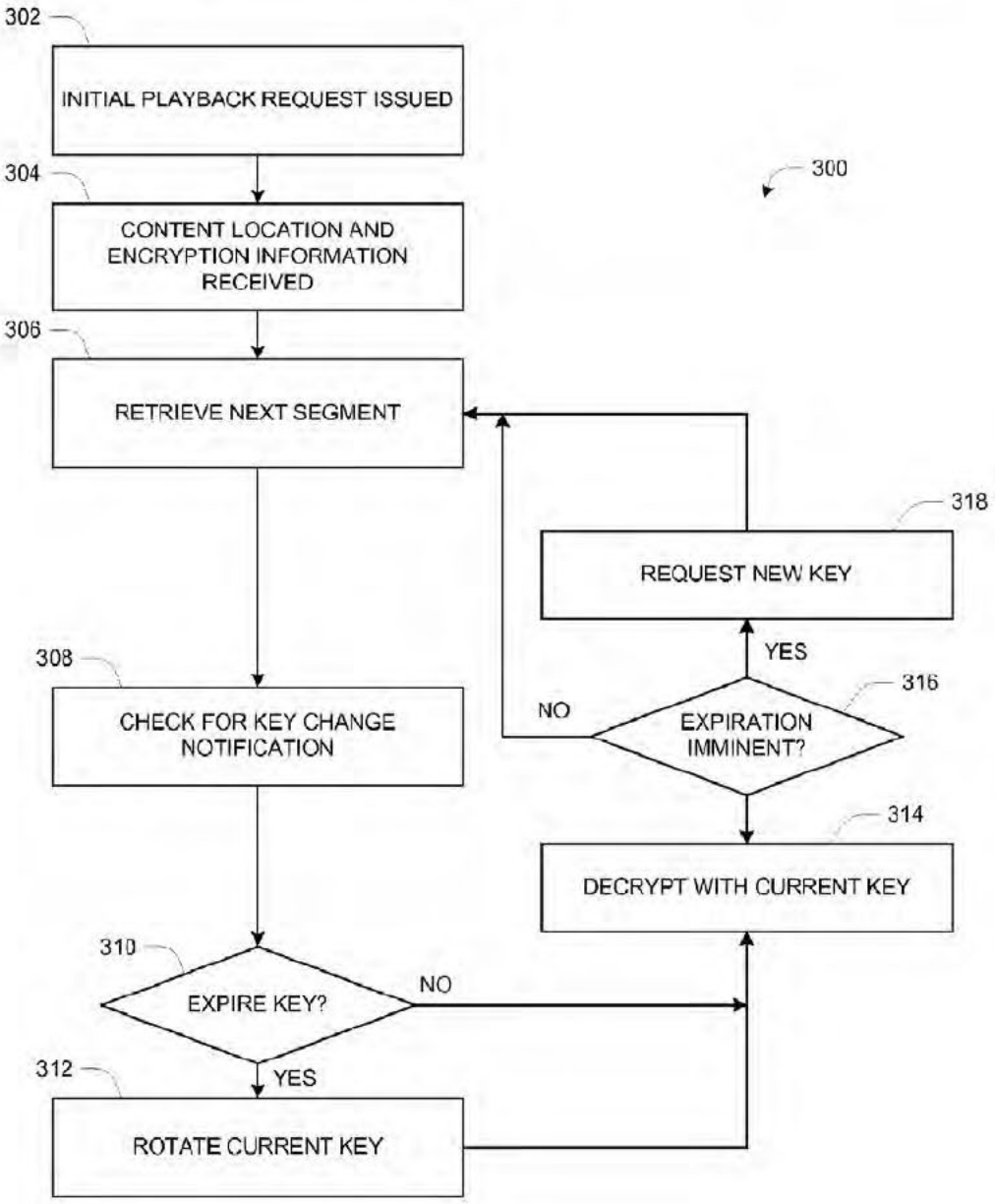


Fig. 3

178 Patent at Fig. 3.

[redacted]

B. Level of Ordinary Skill in the Art

A person having ordinary skill in the art of the 178 Patent at the time of invention:

> [W]ould have had a bachelor's degree in electrical engineering, computer engineering, computer science, or a similar discipline, and at least two years of experience in the design and/or development of communication systems employing encryption, with additional education substituting for experience and vice versa.

Order No. 25 at 14. The parties do not challenge this definition (*see generally* CIB; CRB; RIB; RRB), and it is applied throughout this initial determination.

C. Claims at Issue

Claims 16 and 17 of the 178 Patent (the "178 Asserted Claims") are at issue in this investigation, either through allegations of infringement or DI technical prong. *See* CIB at 15, 38. The asserted claims are reproduced below:

> 16. [pre] A computerized device operable as a client for handling secure distribution of content, comprising:
>
> [a] memory operative to store computer program instructions; one or more processors; input/output interface circuitry; and interconnect circuitry coupling the memory, processors and input/output interface circuitry together, wherein the processors are operative to execute the computer program instructions from the memory to cause the computerized device to:
>
> [b] initiate a media playback request and receive a playback request response;
>
> [c] parse content information from the playback request response, the content information including content encryption keys, content encryption key identifiers, and content encryption key expiration times;
>
> [d] retrieve content and manifest files from a content delivery server;
>
> [e] detect content encryption key rotation boundaries between periods of use of different content encryption keys in decrypting retrieved content;
>
> [f] issue requests to a license server ahead of a key rotation boundary to retrieve a second content encryption key to be used after a content encryption key rotation boundary is reached; and
>
> [g] apply the second key for content decryption after the key rotation boundary is reached.

[redacted]

17. The computerized device of claim 16, wherein the content encryption keys and content encryption key identifiers returned in the playback request response include the content encryption key and associated identifier currently being applied as well as a future content encryption key and associated identifier yet to be applied.

D. Claim Construction

As part of the *Markman* process, the following claim terms of the 178 Patent were construed:

Claim Term	Construction
Preamble of claim 16	The preamble is a limitation of the claim; specifically, the portion of the preamble reciting a "computerized device operable as a client" is a limitation of the claim.
Content encryption key identifier	"for each content encryption key, a unique identifier to identify that content encryption key"
"content encryption key(s)"	Construed not to require application to a "media content segment," but its construction was otherwise deferred
Ordering of steps (i.e., the "detect" and "issue" steps) – 178 Patent	construed such that the "detect" step (16[e]) and "issue" step (16[f]) do not have an order relative to each other

See Order No. 25 at 15-16, 25.

1. "detect content encryption key rotation boundaries"

Ericsson seemingly contends that the term "detect content encryption key rotation boundaries between periods of use of different content encryption keys in decrypting retrieved content" should be construed as "looking for and finding the content encryption key rotation boundaries in the data stream . . .." CIB at 17. This construction appears to be relevant only for evaluating one prior art reference, and not for infringement or DI technical prong. *See id.* at 41-43. As explained below, how the term is construed has no bearing on the resolution of the invalidity question presented, so this issue is immaterial and will not be addressed.

[redacted]

2. "content encryption key(s)"

The term "content encryption key(s)" was construed during the *Markman* process. *See* Order No. 25 at 17-21. At that time the parties disputed whether the term encompassed a key for encryption (Respondents' position), or a key for encryption and/or decryption (Ericsson's position). *See id.* The *Markman* Order noted in dicta that "the plain and ordinary meaning of 'content encryption key' is seemingly 'a key that may be used to encrypt or decrypt content,'" but formally deferred ruling on the issue. *Id.* at 18. Respondents apparently now take the entirely new position that the term must be construed as a key "used to both encrypt *and* decrypt content," but present no claim construction points beyond that bare assertion. *See* RIB at 40 n.10 (emphasis added). Because their assertion is unsupported by even cursory analysis, it is not addressed, and the plain and ordinary meaning articulated in the *Markman* Order is applied.

Respondents also assert that the Accused Products and DI Products do not fall within the scope of claim 16 because [redacted] RIB at 38-42 (quoting Tr. (McDaniel) at 515:10-18, 56). Ericsson contends that this assertion presents a claim construction dispute, but it does not, as explained below. *See* CRB at 17. Therefore, this issue is also not addressed.

E. Infringement

1. Direct Infringement

Ericsson asserts claims 16 and 17 of the 178 Patent against four categories of accused products: 178 Patent Accused Mobile Phones, 178 Patent Accused Tablets, Accused Windows Laptops, and Accused Chromebooks. CIB at 24. Ericsson relies largely on the opinions of its expert, Dr. Eric Burger, who examined source code and samples of Lenovo products in each of the

[redacted]

four categories. *Id.*; Tr. (Burger) at 139:1-5 ("So I examined a Moto G Stylus 5G, a mobile phone; Tab M10 Plus, a tablet; and two laptops, the Chromebook Duet 3, and the ThinkPad X1."), 145:10-25139:10-140:13, 141:19-142:12; CDX-0002C.17. As discussed below, the evidence does not support that any of the 178 Patent Accused Products meet each limitation of claims 16 and 17 of the 178 Patent, and, therefore, there is no direct or indirect infringement of those claims.

a) Claim 16

(1) 16[pre]

Element 16[pre] recites "[a] computerized device operable as a client for handling secure distribution of content." As noted, the preamble of claim 16 was determined to be limiting during the *Markman* phase; specifically, the portion of the preamble reciting a "computerized device operable as a client" is a limitation of the claim. *See* Order No. 25 at 15. Dr. Burger opined that each of the 178 Patent Accused Products are computerized devices operable as a client in part because the samples of the 178 Patent Accused Products he examined each include the Widevine software, a proprietary digital rights management (DRM) system developed by Google, which is used to decrypt content for playback. CIB at 25; Tr. (Burger) at 139:1-5, 139:10-140:13, 141:19-142:12; CDX-0002C.17.

However, he also opined that the 178 Patent Accused Products require a "suitable player" to be installed to satisfy this claim element:

> Q. Now, returning -- if you go back to slide 19 --is the Widevine software enough to provide the claimed capability in the accused mobile phones?
>
> A. No, it is not. The device also needs a suitable player installed. In the case of the phones, I looked for a framework called ExoPlayer, which is also a Google open source product, which are applications used to create players. And ExoPlayer, when playing encrypted content, can use Widevine.

Tr. (Burger) at 139:17-25. For the 178 Patent Accused Mobile Phones, the devices include a Widevine Content Decryption Module (CDM), version 16.1.0, as well as ExoPlayer. Tr. (Burger)

[redacted]

at 140:4-16. The 178 Patent Accused Tablets similarly come with Widevine CDM pre-installed and a media player preloaded that uses the Widevine DRM system. Tr. (Burger) at 140:14-22, 141:7-17. For the Accused Windows Laptops, Dr. Burger did not find a media player pre-installed. Tr. (Burger) at 141:18-21. Ericsson accordingly contends that the Accused Windows Laptops indirectly infringe, and this contention is addressed below. CIB at 26.

Respondents do not dispute this limitation concerning the representative 178 Patent Accused Mobile Phones and 178 Patent Accused Tablets. *See* RIB at 32-46; RRB at 30-31. Respondents contend, however, that Ericsson's direct infringement theory fails for the Accused Chromebooks. *See* RRB at 30-31 (citing Tr. (Burger) at 141:18-142:4, 205:2-18, 205:24-206:7). Dr. Burger initially testified that "[t]he Chromebooks also come with Widevine preinstalled and players," and that the "COM Google Android video package" is pre-installed, and he agreed that that video package "uses ExoPlayer." Tr. (Burger) at 140:18-22, 141:7-12. On cross-examination, though, Dr. Burger admitted that the "standalone ExoPlayer is not installed," and that to use it, an Accused Chromebook "user would need to be logged into the Google Play Store" so that the "Google Android video package" may "invoke" ExoPlayer. Tr. (Burger) at 205:5-18. Ericsson does not identify any other "suitable" preloaded media player that might satisfy the preamble, nor does it explain how the COM Google Android video package itself qualifies as a media player, and its suggestion that ExoPlayer is pre-installed on the Accused Chromebooks is inconsistent with Dr. Burger's testimony that it is only "invoke[d]" when a user is logged into Google Play. *See id.* at 204:14-205:7; CRB at 24. So direct infringement of this element is proven as to the representative 178 Patent Accused Mobile Phones and 178 Patent Accused Tablets, but not as to the Accused Windows Laptops and Accused Chromebooks.

[redacted]

(2) 16[a]

Element 16[a] recites "memory operative to store computer program instructions; one or more processors; input/output interface circuitry; and interconnect circuitry coupling the memory, processors and input/output interface circuitry together, wherein the processors are operative to execute the computer program instructions from the memory to cause the computerized device to [perform the claimed operations]." Dr. Burger opined, based on his examination, that the representative 178 Patent Accused Products "all have CPUs and memories and input/output devices" and "are all connected together." Tr. (Burger) at 143:8-144:14. Respondents do not dispute this element. *See generally* RIB at 25-47; RRB at 23-37. Accordingly, Ericsson has proven by a preponderance of the evidence that the representative 178 Patent Accused Products all meet this limitation.

(3) 16[b]

Element 16[b] recites "initiate a media playback request and receive a playback request response." Ericsson relies on a Google description of key rotation to show that [redacted]

[redacted]

CDX-0002C.46 (annotating CX-0864C.0002); Tr. (Burger) at 146:11-147:2; *see* CIB at 28. [redacted] *See* Tr. (Burger) at 146:1-10. In describing a different diagram, Dr. Burger characterized the requesting entity as the "suitable [media] player" rather than the client, but Respondents do not take issue with that, and the record thus demonstrates that all the representative 178 Patent Accused Products issue a request and receive a response, even if they lack a preloaded media player. Tr. (Burger) at 146:1-10 (discussing CX-0863C.0008); *see* RIB at 42-45.

Respondents do, however, take issue with two other matters. RIB at 42-45. First, they argue that element 16[b] (the initiating step) must happen before element 16[c] (the parsing step), but when the [redacted] so a "Widevine license request" performs the steps out of order. RIB at 43. To the extent this presents a claim construction issue, Respondents cite no pertinent evidence whatsoever. The only support they offer is a citation

[redacted]

to "RX-1158.0017-0019," which are pages from the *Markman* Order that, as relevant here, construe similar language in method claim 1. RIB at 42; *see* Order No. 25 at 15-17.

It is true that the steps of a method claim can be construed to require an order, and this principle applies equally to apparatus and system claims involving operations carried out by a computer or other electronic device. *See Function Media, LLC v. Google Inc.*, 708 F.3d 1310, 1319-20 (Fed. Cir. 2013) (holding that two steps performed by a "computer system" comprising a "computer controller" must be performed in a particular order). But the steps in a claim "are not ordinarily construed to require" an order, and except for their erroneous citation to the construction of claim 1, Respondents make no effort to show that claim 16 should be construed to require one; they initially proposed such a construction during the Markman process, in fact, but apparently abandoned it. *Interactive Gift Express*, 256 F.3d at 1342; *see* RX-1162 at 3. Because their assertion is unsupported by even cursory analysis, it is not addressed, and as between elements 16[b] and 16[c] no order is imposed, and the plain and ordinary meaning is applied. And given that plain and ordinary meaning, [redacted] does not negate the finding that [redacted] qualifies as a media playback request.

Respondents secondly argue that [redacted] *See* RIB at 42-45. But Ericsson is correct that "initiate" clearly modifies "the 'media playback request' and not the entire claimed process," and to the extent this presents a claim construction dispute Respondents cite no evidence other than the claim language itself. CRB at 31; *see* RIB at 42-45. And initiating the [redacted] qualifies as

[redacted]

initiating a media playback request because, again, the "license response" comprises a content key, which is needed to play the content, whenever that content is received. Tr. (Burger) at 146:1-10. So the representative 178 Patent Accused Products practice element 16[b].

(4) 16[c]

Element 16[c] recites "parse content information from the playback request response, the content information including content encryption keys, content encryption key identifiers, and content encryption key expiration times." Ericsson contends that the contents of the returned "license response" and its processing in a Widevine implementation on the 178 Patent Accused Products meet this limitation. CIB at 28-30. One Google document expressly states that the license response is "parse[d]." CX-0863C.0008 ([redacted]). Dr. Burger testified that the [redacted] Tr. (Burger) at 232:11-16. Although Respondents argue, as discussed, that element 16[b] is not satisfied in part because [redacted] they otherwise do not dispute that the key ID qualifies as a "content encryption key identifier." *See* RIB at 32-46.

As for the content encryption keys themselves, a Google Widevine document states that the [redacted] and that the keys are [redacted]' CX-0866C at 9. Respondents agree that "[redacted] but argue that [redacted] Tr. (McDaniel) at 513:7-16; *see* RIB at 38-42. As Respondents' expert, Dr. Patrick McDaniel, put it, [redacted] Tr. (McDaniel) at 515:10-18.

[redacted]

On this point, no claim construction is required, because Respondents are wrong on the facts. *See* CRB at 17. Dr. Burger testified that [redacted] Tr. (Burger) at 227:18-228:3. Dr. McDaniel seemingly disagreed, but with an ambiguous explanation: he opined that Dr. Burger's "assertion that extraction somehow is parsing . . . is just wrong as a matter of computer science," but he also opined that "[p]arsing is . . . reading the data out of a data structure," and on that understanding reading [redacted] Tr. (McDaniel) at 513:7-16. Respondents concede that the [redacted] RIB at 40-41. And there are at least two such "keys" (and "key identifiers"), one for audio and at least one for video. *See* Tr. (Burger) at 148:9-22. Most of the limitations of element 16[c], then, are satisfied.

Respondents' arguments on the "content encryption key expiration times" limitation, however, are persuasive. Ericsson maps this limitation to one or more "durations" provided in the license response:

> As Dr. Burger explained at the hearing, [redacted] are key expiration times, the keys are expired. These are fields that define when the keys will expire and that is all that is required by the claim.

CRB at 25 (citations omitted). Dr. Burger testified that the client "checks to see if the license or rental or playback duration has expired" by "comparing [the relevant duration data] to the current time," and if so, "then the key is expired." Tr. (Burger) at 150:21-151:7. One Google Widevine document defines [redacted] CX-0865C at

[redacted]

3. [redacted] *Id.* [redacted] *Id.* Respondents assert that [redacted] *see* RIB at 36 (citing CX-0866C at 35)), which Ericsson does not dispute (*see* CRB at 25-28), although Dr. Burger observed [redacted] *See* Tr. (Burger) at 223:6-224:14 [redacted].

There are three problems with Ericsson's position. First, even assuming that every key is considered expired [redacted] s reached, "expiration time" and "duration" are not the same thing. Certainly if one knows the start time (for instance, the "[redacted]") and the duration (for instance, the "[redacted]") it is trivial to calculate a key expiration time. But Ericsson offers no evidence that key expiration time itself is parsed, extracted, decrypted, or otherwise obtained from or "includ[ed]" in the content information, as opposed to determined in some other manner. *See* CIB at 28-30; CRB at 25-28. The triviality of calculating expiration time by simply adding duration and start time might support a doctrine of equivalents case, as Respondents imply. *See* RRB at 34. But the claim requires key expiration times to be included in the content information, and rental, playback, and license durations are not literally key expiration times.

Second, Respondents persuasively argue that "[redacted] RIB at 35. Also, the source code on which Ericsson relies even suggests that the keys have no expiration times:

[redacted]

CDX-0002C.40 (annotating CPX-0005C). As Dr. Burger explained it:

> A. Yeah. So this is code that runs on the client. [redacted]

Tr. (Burger) at 150:21-151:7. Ericsson offers no evidence that keys are expired by any process other than what Dr. Burger described. *See* CIB at 28-30; CRB at 25-28. And under that process, [redacted] *See* Tr. (Burger) at 150:21-151:7. So [redacted] do not qualify as "key expiration times" because, simply, key expiration times according to the plain and ordinary meaning of that term do not exist in Widevine, nor need to exist.

Third, and relatedly, [redacted] Thus, the key expiration times cannot be included in the content information. *See* RIB at 37. As Dr. McDaniel explained:

[redacted]

[redacted]

Tr. (McDaniel) at 507:6-19. He illustrated this by reference to source code:

[redacted]

RDX-0007C.32 (annotating RPX-0001C). Dr. Burger agreed that [redacted] although he opined that [redacted] Tr. (Burger) at 220:17-221:1, 286:1-18. Put simply, even assuming content encryption key expiration times exist in Widevine, [redacted] and so necessarily cannot be included in the claimed content information.

Accordingly, Ericsson has not shown that element 16[c] is met in Widevine, and therefore has not shown that any of the 178 Patent Accused Products infringe claim 16.

(5) 16[d]

Element 16[d] recites "retrieve content and manifest files from a content delivery server." Dr. Burger explained, based on his review of the Widevine documentation and ExoPlayer code, that the media player retrieves content and manifest files. Tr. (Burger) at 152:8-153:5; CX-0896; CX-

[redacted]

1307; CX-1318; CX-1325; CX-1322; CX-1364. And the Widevine DRM architecture overview documentation describes "a player receiv[ing] encrypted content" and that "[a] manifest (MPD) is prepared that describes the different resolutions and bandwidth for each file." CX-0896.0011. Respondents do not dispute that a Widevine implementation meets this limitation. *See* RIB at 32-46; RRB at 23-37. Respondents correctly point out, though, that no media player is preloaded on the Accused Windows Laptops, and as explained above, for the Accused Chromebooks to work with ExoPlayer the user must be logged in to the Google Play Store, so the Accused Chromebooks do not by themselves receive either content or manifest files. *See* RRB at 30-31; Tr. (Burger) at 153:2-5 (the manifest file is "prepared for the player to receive it"). Therefore, only the representative 178 Patent Accused Phones and 178 Patent Accused Tablets directly practice this element.

(6) 16[e]

Element 16[e] recites "detect content encryption key rotation boundaries between periods of use of different content encryption keys in decrypting retrieved content." The 178 Patent Accused Products practice this limitation because [redacted]

CX-0887.0004 (annotated); *see* CIB at 31. As Dr. Burger explained, [redacted] Tr. (Burger) at 154:6-11. Respondents do not dispute that a Widevine implementation meets this limitation. *See* RIB at 25-47; RRB at 23-37. Therefore, this element is met by the representative 178 Patent Accused Products.

[redacted]

(7) 16[f]

Element 16[f] recites "issue requests to a license server ahead of a key rotation boundary to retrieve a second content encryption key to be used after a content encryption key rotation boundary is reached." Ericsson contends that products implementing Widevine with a suitable media player have a "prefetch step," where they issue a request via the media player "ahead of a key rotation boundary" to the license server for an upcoming key rotation period. Tr. (Burger) at 154:23-156:7; *see* CIB at 32. Specifically [redacted] RIB at 50; *see* Tr. (Burger) at 154:16-22; Tr. (McDaniel) at 525:11-24. Respondents refer to this as [redacted]



RX-0016C at 1; *see* RIB at 49-52; CX-0887.0004. Because the key for the next key period is prefetched, it may be used after the next key rotation boundary is reached, and, thus, element 16[f] is satisfied by Widevine with a suitable media player.

[redacted]

Respondents raise two arguments challenging Ericsson's assertions for this claim element. *See* RIB at 45-46. First, Respondents contend that "Ericsson's assertions improperly conflate disparate use cases and contradict Ericsson's own expert testimony admitting that entitlement key is not accused and does not infringe." RIB at 45 (citing CX-0862C and Tr. (Burger) at 236:22-237:2). Specifically, Respondents contend the cited part of CX-0862C relied upon by Ericsson "does not even relate to Widevine." RIB at 46. Second, Respondents contend that "the single license or 'single key' use case cannot satisfy limitations 16[f] or claim 17 because the client device either never requests or applies another key for any media track or makes such a request after the key rotation boundary occurs." *Id.* (emphasis omitted).

Regarding the first argument, Ericsson does not cite CX-0862C in addressing element 16[f], and it does not appear that Dr. Burger relied on CX-0862C in forming his opinions. *See* CIB at 32. Dr. Burger identified five documents to support his opinion on this element, which are shown in a demonstrative exhibit (CDX-0002C.45) and do not include CX-0862C, in another demonstrative exhibit he annotated CX-0864C (CDX-0002C.46), and in his testimony he described what is shown in CX-0864C, and nothing in his testimony explicitly identifies CX-0862C. Tr. (Burger) at 155:17-156:7. Regarding the second argument, Ericsson does not argue that the "single use" case infringes as to the 178 Patent Accused Products, so this argument is beside the point—although it is relevant to the Redesigned Devices. *See* CIB at 32; CRB at 35. Thus, insofar as the representative 178 Patent Accused Mobile Phones and 178 Patent Accused Tablets possess a preloaded media player capable of issuing a post license request, Ericsson has shown that element 16[f] is met, but Ericsson has not shown that the Accused Chromebooks or Accused Windows Laptops directly meet this element.

[redacted]

(8) 16[g]

Element 16[g] recites "apply the second key for content decryption after the key rotation boundary is reached." Ericsson contends that the 178 Patent Accused Products have suitable media players that apply a second key from the license to continue to decrypt content after a key rotation boundary is reached. *See* CIB at 33; Tr. (Burger) at 156:8-157:7 [redacted]). Dr. Burger explained that [redacted] Tr. (Burger) at 156:17-157:7. Respondents do not dispute that the 178 Patent Accused Products meet this limitation. *See* RIB at 25-47; RRB at 23-37. Ericsson has thus proven that the representative 178 Patent Accused Mobile Phones and 178 Patent Accused Tablets meet claim element 16[g], but because it has not shown that the Accused Windows Laptops and Accused Chromebooks have preloaded media players, it has not proven the direct practice of this element by those products.

b) Claim 17

Claim 17 depends from independent claim 16, and recites: "The computerized device of claim 16, wherein the content encryption keys and content encryption key identifiers returned in the playback request response include the content encryption key and associated identifier currently being applied as well as a future content encryption key and associated identifier yet to be applied." As noted, in response [redacted]

[redacted]

CDX-0002C.50 (annotating CX-0887.0004); *see also* Tr. (Burger) at 157:25-158:6. Respondents do not argue any specifics of Ericsson's infringement case for dependent claim 17. *See* RIB at 46 (explaining that Ericsson fails to establish infringement for claim 17 for the same reasons as independent claim 16); *see also id.* ("Separately, the single license or 'single key' use case cannot satisfy limitations 16[f] or claim 17 because the client device either never requests or applies another key for any media track or makes such a request after the key rotation boundary occurs."). Ericsson has thus proven that the representative 178 Patent Accused Products practice the element added by claim 17, although as noted no 178 Patent Accused Product satisfies element 16[c] and so does not practice claim 17.

2. Indirect Infringement

As a first step in proving induced or contributory infringement, Ericsson must prove that the 178 Patent Accused Products directly infringe claims 16 or 17 of the 178 Patent. *BMC Res. v. Paymentech*, 498 F.3d 1373, 1379 (Fed. Cir. 2007) ("Indirect infringement [] requires, as a predicate, a finding that some party amongst the accused actors has committed the entire act of direct infringement."); *Novartis Pharm. Corp. v. Eon Labs Mfg. Inc.*, 363 F.3d 1306, 1308 (Fed. Cir. 2004) ("When indirect infringement is at issue, it is well settled that there can be no inducement or contributory infringement absent an underlying direct infringement."). As discussed above,

[redacted]

Ericsson failed to prove such direct infringement and thus, as a matter of law, Ericsson cannot prevail on a claim of indirect infringement.

As to the Accused Chromebooks, Ericsson seemingly argues that it need not prove indirect infringement because "the Google Android video package is pre-installed," but as explained above that video package does not provide a media player for the Chromebooks because it does not work without a connection to the Google Play Store. CRB at 21. So neither direct nor indirect infringement by the Accused Chromebooks has been shown. And as to the Accused Windows Laptops, because "Dr. Burger conceded he did not find an installed [media player] on the Windows laptops," Ericsson argues for both inducement of infringement and contributory infringement. CRB at 21; *see* CIB at 26.

Its case for both types of indirect infringement, however, is insufficient. To induce infringement, an accused infringer must know of the patent and actively and knowingly aid and abet another's direct infringement. *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (en banc). This requires "evidence of culpable conduct, directed to encouraging another's infringement," that is, "affirmative intent to cause direct infringement." *Id.* at 1306. Ericsson's only evidence of "affirmative intent" consists of screenshots of Lenovo's support website regarding how to stream Netflix and Disney+; there is no evidence Respondents "possessed specific intent to encourage another's infringement." *Id.* (citation and quotation marks omitted); *see* CX-1247, CX-1252; Tr. (Burger) at 142:5-17; CIB at 26; CRB at 21. And for contributory infringement, Ericsson's only evidence is the conclusory opinion of Dr. Burger, who did not even attempt to explain how Respondents sold the Accused Windows Laptops "with knowledge that the component is especially designed for use in a patented invention, and is not a staple article of commerce suitable for substantial noninfringing use." *Wordtech Sys., Inc. v. Integrated Networks Solutions, Inc.*, 609 F.3d

[redacted]

1308, 1316 (Fed. Cir. 2010); *see* CIB at 26 (citing Tr. (Burger) at 141:19-142:4. Ericsson has therefore not proven indirect infringement by any 178 Patent Accused Product.

3. Representativeness

As explained, Dr. Burger examined four products, one in each of the four categories of 178 Patent Accused Products, and Ericsson asserts that each examined product is representative of other products within its category: the Moto G Stylus 5 G (phones), Tab M10 Plus (tablets), Lenovo ThinkPad X1 (Windows laptops), and Chromebook Duet 3 (Chromebooks). Tr. (Burger) at 139:1-5; *see* CIB at 13-14. Respondents present two unpersuasive arguments that representativeness has not been shown. *See* CIB at 25-48.

First, they argue that for those 178 Patent Accused Products running Android, and particularly for the 178 Patent Accused Phones, [redacted] *See* RIB at 26-27, 31. It appears to be undisputed that the only version of Android Dr. Burger examined was Android 14, even though the representative phone he examined runs Android 13. *See* CRB at 22; CX-1244 at 15. And some of Dr. Burger's testimony on which Ericsson relies was stricken. *Compare* CIB at 14 (citing Tr. (Burger) at 158:18-163:7 *with* Tr. at 159:4-15 (sustaining the objection and striking the answer). What was not stricken includes the explanation that "I also evaluated the Edge, and it's a device running Android with the Android load of the Widevine software." Tr. (Burger) at 159:17-24. On the other hand, Dr. McDaniel testified that [redacted] *id.* at

[redacted]

578:10-24). And Ericsson's case for infringement turns on the functionality of Widevine, not on Android or any version of Android implementing Widevine, as Dr. Burger testified. *See* Tr. (Burger) at 159:17-160:17. Respondents cite no reason why Widevine's functionality differs from one version of Android to another, even if the Android source code differs, so on balance Dr. Burger's testimony is sufficient to show representativeness across Android devices.

Second, Respondents advance a similar argument relating to other 178 Patent Accused Products: Ericsson did not prove that the [redacted] RIB at 28 (emphasis omitted). They advance the same argument regarding the Accused Chromebooks, which "run Chrome OS." RIB at 29-30. This is all immaterial. Dr. Burger's opinion that the ThinkPad X1 is representative of the other Accused Windows Laptops was based on his observation that it has "the Windows version of the Widevine software, which is substantially the same as on other Windows devices," and had nothing to do with Android. Tr. (Burger) at 160:7-13. His representativeness opinion on the Chromebook Duet 3 did reference the "mobile phone[s]," but he specifically relied on the Widevine software, not on Android. *Id.* at 159:25-160:6 ("the Chrome OS version of the Widevine software [is] substantially the same as the mobile phone's Widevine software"). This is sufficient to show representativeness of the Chromebook Duet 3 despite the difference in Android versions.

Overall, Dr. Burger's opinion that the four products he examined are representative of their categories is sufficiently supported. *See* Tr. (Burger) at 159:17-160:17. So Ericsson has shown that, if the four representative 178 Patent Accused Products infringe, then all 178 Patent Accused Products infringe.

[redacted]

4. Redesigned Devices

The Redesigned Devices use Widevine, and thus do not infringe for the same reasons as the 178 Patent Accused Products. *See* CIB at 34-37. The Redesigned Devices also interact with the license server differently than the 178 Patent Accused Products, in that [redacted] *See* Tr. (McDaniel) at 528:4-16; *see generally id.* at 525:4-529:18. Put differently, [redacted] *See* Tr. (McDaniel) at 525:4-10.

Respondents argue that element 16[f], requiring issuance of a request to a license server "ahead of a key rotation boundary," is not satisfied. *See* RIB at 52-55. They reason that under the redesign [redacted] *Id.* at 52-54 (emphasis omitted). For purposes of analyzing element 16[e], Dr. Burger agreed that the [redacted] Tr. (Burger) at 154:6-22; *see* CX-0887 at 4. In attempting to avoid the effect of the redesign, however, Ericsson seemingly takes the position that the key rotation boundary occurs [redacted] CIB at 37 (quoting Tr. (Burger) at 155:25-156:7).

Inasmuch as Ericsson's position presents a claim construction issue, it is beside the point because, as Ericsson also notes, "the Accused Devices have program instructions with the required

[redacted]

functionality." CRB at 36. Whether the Redesigned Devices [redacted] is not relevant to whether they are "device[s] operable" to "issue requests" for prefetching keys through "program instructions" stored in their memory and executed by their processors. Nothing in the programming of the Redesigned Devices changed as a result of the redesign, so the functionality of the Redesigned Devices pertinent to the claim language is also unchanged, whatever server functionality may have changed. In short, the redesign affected nothing about the 178 Patent Accused Products themselves, so the Redesigned Devices infringe to the same extent. Again, though, the 178 Patent Accused Products do not infringe, so neither do the Redesigned Devices.

F. Domestic Industry – Technical Prong

For domestic industry, Ericsson asserts that the Samsung Galaxy S21, S22, S23, and S24 phones practice claims 16 and 17. *See* CIB at 13, 38-40. Dr. Burger examined only the S23, however, and the parties dispute whether it is representative of the other phones. *See* Tr. (Burger) at 138:13-19; RIB at 55-56; RRB at 41. Respondents also argue that because the S23 uses Android 13, Dr. Burger's examination of Android 14 source code does not show that the S23 practices the claims. *See* RIB at 55-56. But Dr. Burger testified without objection that the S23 "run[s] substantially the same operating system with substantially the same Widevine code" as the other Galaxy phones. Tr. (Burger) at 163:2-7. Although Dr. McDaniel offered a countervailing opinion (although only regarding the lack of analysis of source code predating Android 14), for the same reasons discussed above for the 178 Patent Accused Products, this argument is unpersuasive. *See* RIB at 55-56; Tr. (McDaniel) at 530:5-21. So as an initial matter, Ericsson has shown that the Samsung Galaxy S23 is representative of all four asserted DI products.

[redacted]

Ericsson has not, however, shown that the S23 practices claim 16 or claim 17. It relies on the same Widevine functionality as it relies on for infringement, and its technical prong case thus suffers from the same shortfalls as its infringement case, as Respondents observe. *See* CIB at 38-40; RIB at 56. In particular, the following elements are met: 16[pre] because the S23 has Widevine and YouTube is preloaded as the media player (Tr. (Burger) at 142:11-143:7); 16[a] because the S23 has "CPUs and memory and input/output devices" (*id.* at 144:6-14); and 16[b], 16[d], 16[e], 16[f] and 16[g] for the same reasons as the directly infringing 178 Patent Accused Products, which also use Widevine (*id.* at 145:3-147:2, 152:8-157:7). The element added by claim 17 is also practiced for the same reasons as the 178 Patent Accused Products. *See id.* at 157:8-158:17.

Element 16[c] remains problematic, however, and Ericsson relies on the same Widevine functionality found wanting above. *See* CIB at 39. For that reason, Ericsson has not shown that any domestic industry product practices either claim 16 or claim 17 of the 178 Patent, so the technical prong of domestic industry has not been proven.

G. Validity

1. 35 U.S.C. § 101 – Subject Matter Eligibility

Respondents contend that the 178 Asserted Claims are invalid under Section 101 because they are "directed to . . . the abstract idea of using content encryption keys to encrypt and decrypt respective segments of media content using a general-purpose computer as [a tool] to carry out the encryption and decryption." RIB at 80. *Alice* teaches that the first analytic step under Section 101 is to determine whether the focus of the claims, or their character as a whole, is directed to excluded subject matter. *See CardioNet, LLC v. InfoBionic, LLC*, 955 F.3d 1358, 1367-68 (Fed. Cir. 2020) (citing *Alice*, 573 U.S. at 216-18). Sometimes the law applicable to this step, and to Section 101 as a whole, is "difficult to reconcile and apply." *Health Discovery Corp. v. Intel Corp.*, 577 F.Supp.3d

[redacted]

570, 576 (W.D. Tex. 2021). That is not the case with the 178 Patent, because Respondents err in how they characterize the focus of the claims. They assert, for example, that the claims are directed to both encryption and decryption, but neither claim recites encryption. *See* RIB at 80.

More to the point, they characterize the claims "at an impermissibly high level of generality." *Contour IP Holding LLC v. GoPro, Inc.*, 113 F.4th 1373, 1379-80 (Fed. Cir. 2024). In *Contour IP* the district court characterized the representative claim as directed to the abstract idea of "creating and transmitting video (at two different resolutions) and adjusting the video's settings remotely." *Id.* at 1378 (internal quotation marks omitted). The Federal Circuit rejected this, and instead characterized the claim as "directed to a technological solution to a technological problem," namely, a camera with a processor configured to record two data streams in parallel, with one, a "low-quality" data stream, transmitted to a remote device to facilitate adjusting the camera recording in real time, thereby eliminating "bandwidth limitations on wireless data transfer." *Id.* at 1379-80. Similarly, in *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356, 1362-63 (Fed. Cir. 2018), the Federal Circuit held patent-eligible claims covering "an improved user interface for computing devices," in part because the claims "recite a specific improvement over prior systems." The court rejected the accused infringer's characterization of the claims as directed to "the abstract idea of an index," because of three specific limitations: "a particular manner by which [a claimed feature] must be accessed," a limitation that "restrains the type of data that can be displayed," and "a requirement that the device applications exist in a particular state." *Id.* In combination these limitations "improve[d] the efficiency of using the electronic device" and resulted in "an improvement in the functioning of computers, particularly those with small screens." *Id.* at 1363.

As in *Contour IP* and *Core Wireless*, the claims here provide a technological solution to a technological problem. The problem is identified in the specification:

[redacted]

> As content delivery models move away from streaming distribution over private networks to Web-based delivery of files over the public Internet, referred to as over-the-top (OTT) delivery, traditional content protection paradigms must be modified to support new delivery protocols, e.g., HTTP Live Streaming. For live streaming content with long or indefinite durations, use of a single encryption key for the entire duration increases the probability that the key may be compromised. Traditional key rotation schemes used in private multiple system operator (MSO) and mobile network operator (MNO) distribution networks, where physical security protects the key distribution path, do not extend to use over the public Internet, where communications channels are more susceptible to attack. Furthermore, the encryption used with nascent segment-based HTTP distribution protocols (e.g., HTTP Live Streaming, Silverlight Smooth Streaming, MPEG/3GP Dynamic Adaptive Streaming over HTTP (DASH), etc.) also differs from traditional streaming techniques. Encryption of non-segmented content is typically performed using a single encryption key using a single continuous pass over the content, from start to finish. For segment-based formats, each segment may use the same content encryption key. Though the content encryption key may be salted with a unique initialization vector (IV) for each segment, the IV is not random and provides only limited security.

178 Patent at 1:18-42. The asserted claims provide a solution that far exceeds abstractly "using content encryption keys to encrypt and decrypt respective segments of media content using a general-purpose computer" for decryption. RIB at 80.

The claims are instead concrete and directed to the solution of "retriev[ing] content . . . from a content delivery server" and "pars[ing] content from [a] playback request response," where the content includes an encryption key, as well as receiving a second encryption key from a "license server." *Id.* at cl. 16. The claims also elaborate on the solution by providing a specific method of implementation: receiving key expiration times in the playback request response, detecting key rotation boundaries between periods of use of different keys, and "apply[ing] the second key . . . after the key rotation boundary is reached," that is, using the next key at the appropriate time. *Id.* And claim 17 adds the even more specific requirement that the current key and at least one future key be part of the playback request response content. *Id.* at cl. 17.

So the claims require obtaining particular information (keys and key expiration times) from particular computers (servers), using that information in a particular way (decryption of content),

[redacted]

and detecting particular data (key rotation boundaries) so that the information can be used at a particular time ("after the key rotation boundary is reached"). 178 Patent at cl. 16. The result is that the security of the media transmission is improved without "interruption of decryption services." 178 Patent at 1:23-42, 11:44-45. As with *Contour IP*, this is a technological solution to a technological problem, and as with *Core Wireless*, it is a specific improvement over prior systems, involving specific methods and limitations and resulting in an improvement in the functioning of computer networks that deliver media content.

This is sufficient under step one of *Alice*, and step two need not be reached. *See* 113 F.4th at 1381. Respondents have therefore not carried their burden under Section 101.

2. 35 U.S.C. § 103 – Obviousness

Respondents argue that the 178 Asserted Claims would have been obvious in view of two primary references as single references, and also in view of combinations of those primary references with two secondary references. *See* RIB at 56-80. The first primary reference, Japanese published patent application number 2004-166153 entitled "Key Change System in Multicast Delivery System," was published June 10, 2004, and was invented by K. Suzuki, et al. RX-0457 at .0027 ("Suzuki"). The second primary reference, U.S. Patent Application Publication No. 2002/0172368 entitled "Initial Free Preview for Multimedia Multicast Content," was published November 21, 2002, and was invented by P. Peterka. RX-0462 ("Peterka"). One secondary reference, U.S. Patent Application Publication No. 2012/0047542 entitled "System and Method for Rule Based Server Side Streaming Manifest Files," was published February 23, 2012, and was invented by J. Lewis, et al. RX-0474 ("Lewis"). The other secondary reference, U.S. Patent Application Publication No. 2010/0235528 entitled "Delivering Cacheable Streaming Media

[redacted]

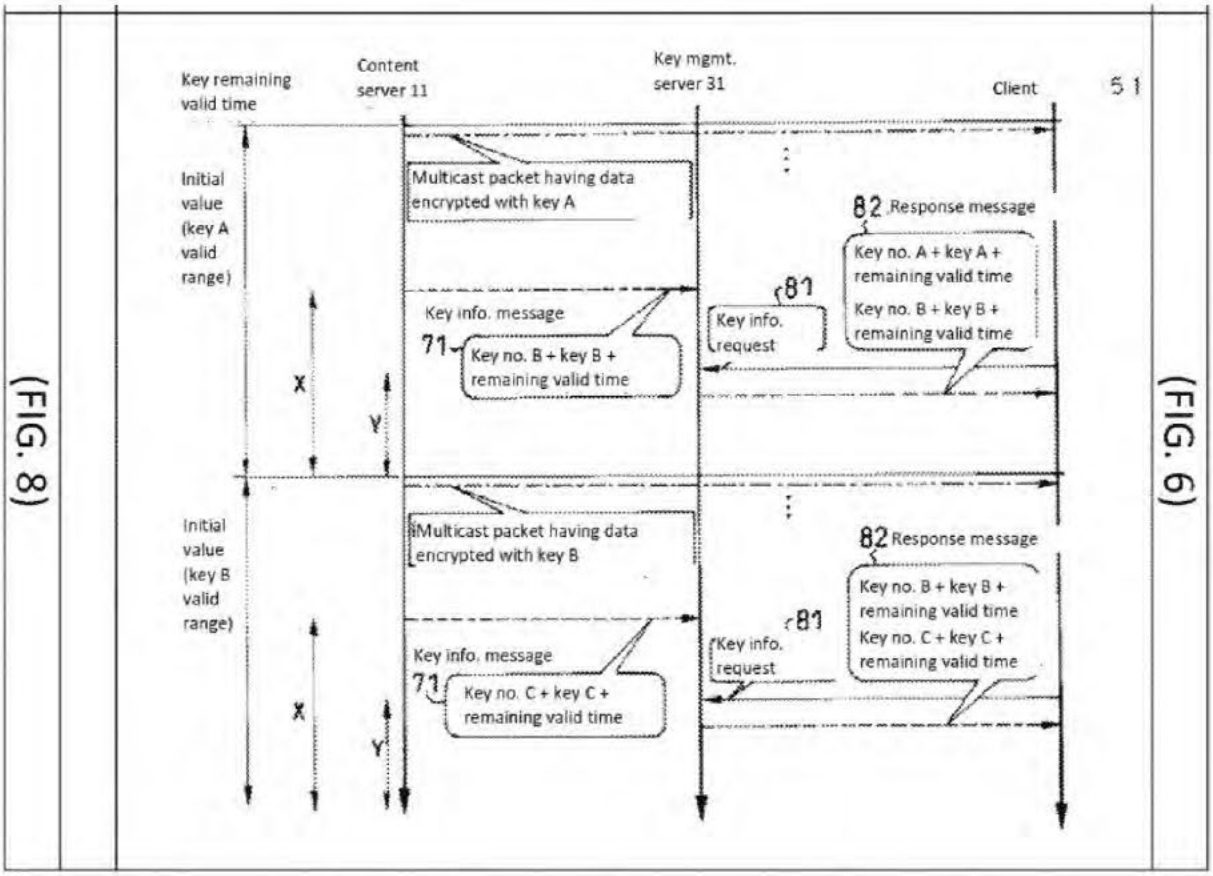
Presentations," was published September 16, 2010, and was invented by J. Bocharov, et al. RX-0448 ("Bocharov").

The 178 Patent claims priority to an application filed June 23, 2011. 178 Patent at 1:8. Suzuki and Peterka consequently both qualify as prior art under 35 U.S.C. § 102(b) (pre-AIA), and Bocharov qualifies as prior art under 35 U.S.C. § 102(a) (pre-AIA). Lewis was filed August 20, 2010, and official notice is taken that it issued as U.S. Patent No. 8,677,428 on March 18, 2014, so it qualifies as prior art under 35 U.S.C. § 102(e) (pre-AIA). *See* RX-0474; RIB at 69. Ericsson does not dispute that all four references qualify as prior art. *See* CIB at 41-45.

a) Suzuki and Suzuki/Lewis

Suzuki discloses a "multicast delivery system" comprising a content server, a key management server, and a client, where content is encrypted "with a different key at regular intervals." RX-0457 at .0034-.0035. It identifies multiple problems with conventional systems, including a "time lag" between requesting a key and starting decryption. *Id.* at .0036. It discloses as a solution the monitoring of a key's "remaining valid time" and then, at a set time, requesting "the key to be used next." *Id.* at .0050. A "key management server" then transmits the next key. *Id.* Suzuki illustrates the process in Figure 6:

[redacted]



RX-0457 at Fig. 6.

It is undisputed that Suzuki expressly or inherently teaches most of the elements of claims 16 and 17. *See* CIB at 41-43. It discloses a computerized device operable as a client for handling the secure distribution of content (*see* RX-0457 at .0043-.0044 ("client 5i")), including a memory for storing computer programs (*see id.* at .0047 ("stored in the memory")), processors (*see id.* ("packet receiving/decryption means")), and input/output interface circuitry and interconnect circuitry (*see id.* at .0047 ("packet receiving/decryption means 5i2 in a client 5i . . . receives a multicast packet"), .0049 ("key management means 5i1 in the client 5i sends a key information request")). *See* Tr. (McDaniel) at 538:14-540:13. It discloses the client sending a "key information request 81" to the key management server after "join[ing] the multicast address," and a "response message 82" back to the client, that is, a media playback request and a playback request response.

[redacted]

RX-0457 at .0049; *see* Tr. (McDaniel) at 540:14-541:8. Response message (82) contains "key information related to the key in use," which, as stored in the client's "key information management table," includes "the keys, the key number, and the remaining valid time," that is, the content of the playback request response includes content encryption keys, content encryption key identifiers, and content encryption key expiration times. RX-0457 at .0048-.0049; *see* Tr. (McDaniel) at 542:6-543:3. And a skilled artisan would understand that such content had been parsed out of response message 82. *See* Tr. (McDaniel) at 541:18-542:6.

It is also undisputed that Suzuki teaches having the client's key management means (5i1) send another key information request (81) to the key management server "to obtain the key information related to the key to be used next," and to do so when "the remaining valid time of the key in use" reaches a non-zero "set value." RX-0457 at .0050; *see id.* at .0053, .0055. This corresponds to issuing a request to a license server ahead of a key rotation boundary to retrieve a second content encryption key to be used after the rotation boundary is reached. *See* Tr. (McDaniel) at 548:19-549:15. Suzuki then discloses that "the client 5i can . . . decrypt with the decryption key because the key information related to the key to be used next is retained," which satisfies the "apply the second key for content decryption after the key rotation boundary is reached" limitation. RX-0457 at .0054-.0055; *see* Tr. (McDaniel) at 549:16-23.

As for "retrieve content and manifest files from a content delivery server," Suzuki teaches "a multicast packet with the encrypted data," that is, content, that "is sent over the network." RX-0457 at .0047. Figure 6, above, shows this being sent directly from the content server to the client, and Dr. McDaniel opined that it would have been obvious to also send a manifest file, which was "ubiquitously" used in 2011, and which contains information about the content, such as the location of different tracks and key identifiers. Tr. (McDaniel) at 543:4-544:10. Dr. McDaniel also opined

[redacted]

that the combination of Suzuki and Lewis would have rendered this element of claim 16 obvious. Tr. (McDaniel) at 544:15-546:15. Lewis is directed to "media playback using dynamic manifest files" and describes using manifest files to "implement enhanced security features, such as limiting or granting access or providing keys based on time windows or rental periods." RX-0474 at [0002], [0032]. A skilled artisan would have had a reason to combine the teachings of Suzuki and Lewis because adding a manifest file to Suzuki would have "provide[d] a richer set of information about the content itself and perhaps increase the quality of the streaming service," and with a reasonable expectation of success because integrating a manifest file into Suzuki would have been so straightforward it "would have [had] very little chance of not working." Tr. (McDaniel) at 544:15-546:15. Ericsson does not dispute this. *See* CIB at 41-43; CRB at 41-43.

As for claim 17, which requires the playback request response to include the current key and a future key, and their key identifiers, Figure 6 of Suzuki shows the initial response message (82) as containing keys A and B, which correspond to one key "currently in use" and one "to be used next," and the text of Suzuki states that the initial response message (82) also contains the key identifiers. RX-0457 at .0049-.0050, Fig. 6; *see* Tr. (McDaniel) at 549:24-550:18. Respondents' expert, Dr. McDaniel, testified that Suzuki discloses this, and opined that claim 17 would have been obvious over Suzuki and over the combination of Suzuki and Lewis "[f]or all the same reasons." Tr. (McDaniel) at 550:7-25. Ericsson does not dispute this. *See* CIB at 41-43; CRB at 41-43.

b) Element 16[e] in Suzuki

In sum, except for element 16[e], "detect content encryption key rotation boundaries between periods of use of different content encryption keys in decrypting retrieved content," it is undisputed that Respondents have established a prima facie case of obviousness of the 178 Asserted Claims over the combination of Suzuki and Lewis. Dr. McDaniel did not, however, explain how a

[redacted]

skilled artisan would have been motivated to use a manifest file with a reasonable expectation of success with Suzuki alone, so Respondents have not made out a prima facie case over Suzuki as a single reference.

This leaves consideration of element 16[e], which Ericsson contends presents a claim construction dispute. *See* CIB at 16-20. It does not. Ericsson contends that "detect content encryption key rotation boundaries" should be construed as "looking for and finding the content encryption key rotation boundaries in the data stream." CIB at 17. Respondents argue that even under Ericsson's proposed construction Suzuki discloses element 16[e], in part because Suzuki discloses "essentially the same" detection method as what Widevine practices and which Ericsson argues (correctly) satisfies the claim element. RIB at 63. Contrary to Ericsson's position (*see* CRB at 42), Respondents did preserve this issue by advancing it in their prehearing brief (*see* RPB at 98).

And it is unnecessary in this instance for Dr. McDaniel to have opined on the issue because the disclosure in Suzuki is clear. *See* CRB at 41-42 (noting that Respondents' theory "has no expert support"). A comparison of Suzuki with Dr. Burger's explanation of the PSSH feature in Widevine illustrates this. In Suzuki:

[redacted]

When the value of the remaining valid time of the key A reaches Y (the second set value), the client 51 sends a key information request 81 to the key management server 31, requesting the key information related to the key to be used next.

. . .

When the value of the remaining valid time of the key A reaches 0, the content server 11 discards the key information related to the key A, which is the key in use, and holds the stored key B, which is the key to be used next, as the new key in use, and uses that key B to encrypt the delivery data.

. . .

When the client 51 receives a multicast packet with the key number of the key B from the content server 11, the client 51 discards the key information related to the key A and holds the key B, which was stored as the key to be used next, as the key currently in use.

RX-0457 at .0053-.0055. And in Widevine:



Tr. (Burger) at 154:6-22. Dr. Burger's testimony that the [redacted] s taken almost verbatim from Google's own description of Widevine. *See* CX-0887 at 4 [redacted].

[redacted]

Thus, in Suzuki, a key rotation boundary between periods of use of different keys happens when the content server switches keys, and this is signaled to the client by including the key number of the new key in the data stream; in Widevine, a key rotation boundary between periods of use of different keys happens when the client "encounters" in the data stream a new header [redacted]) containing the new key ID. That is, in Suzuki the client "detect(s)," or "look[s] for and find[s] the content encryption key rotation boundar[y] in the data stream" (CIB at 17) by receiving the new key number, and in Widevine [redacted] For purposes of element 16(e) there is no principled distinction between these two processes. It is true that in Suzuki the client already knows the key rotation boundary because, as Dr. McDaniel explained, Suzuki "uses a remaining valid [time field]" transmitted to the client as a component of the key information. Tr. (McDaniel) at 547:19-548:10. But as shown in the excerpt above, the client in Suzuki waits to rotate keys until, as with the client in Widevine, it encounters—that is, "detect[s]" or "look[s] for and find[s]"—a signal notifying it of a key rotation boundary.

Respondents are therefore correct that Suzuki discloses element 16[e] "even under Ericsson's impermissibly narrow" proposed construction, there is accordingly no need to address that proposed construction, and Respondents have shown that claims 16 and 17 in their entirety would have been obvious in view of the combination of Suzuki and Lewis. Ericsson has no countervailing evidence of non-obviousness (*see* CIB at 41-45), so under all the *Graham* factors claims 16 and 17 would have been obvious.

b) Peterka and Peterka/Bocharov

Peterka discloses a "multicasting system" comprising client computers and "using encryption keys to distribute program content." RX-0462 at Abstract. It identifies as a problem

[redacted]

that "[a]ll consumer computers would negotiate a key for each [content] segment," resulting in a "large load on the caching server at the segment boundaries." *Id.* at [0080]. Peterka discloses as a solution the provision of "keys to the current as well as the next segment." *Id.* It also discloses using a "predetermined bit in a packet," such as a 1 or a 0, "to indicate the implementation of a new key." *Id.* at [0117].

It is undisputed that Peterka expressly teaches most of the elements of claims 16 and 17. *See* CIB at 43-45. It discloses a computerized device operable as a client for handling the secure distribution of content (*see* RX-0462 at [0012]), including a memory for storing computer programs (*see id.* at [0041] ("computer-readable storage media 205b")), processors (*see id.* ("processor 201")), and input/output interface circuitry and interconnect circuitry (*see id.* ("input device 202, output device 203," and "bus 208")). *See* Tr. (McDaniel) at 553:4-554:7. And it discloses the client "negotiating encryption keys with the caching server" and receiving "Entitlement Control Message (ECM) messages," and Dr. McDaniel opined that these qualify as a media playback request and a playback request response. RX-0462 at [0082], [0104]; *see* Tr. (McDaniel) at 554:8-555:7.

Peterka also discloses downloading a "content object," which could be "video," from an "origin server" or "content exchange[]," that is, retrieving content from a content delivery server, although it does not expressly disclose manifest files. *See* RX-0462 at [0038]-[0039]. Dr. McDaniel opined that it would have been obvious for a POSITA to use manifest files, which were "well known and widely used," both over Peterka as a single reference and in combination with Bocharov, but as with Suzuki his single-reference opinion is not well supported. Tr. (McDaniel) at 559:23-560:7. Bocharov, though, teaches "receiv[ing] client requests for media fragments and provid[ing] manifest data and media fragments to clients," and Dr. McDaniel opined that a "Bocharov manifest file could . . . further enrich the user experience," and a POSITA would have a reasonable expectation of

[redacted]

success in using Bocharov "without major modification." *Id.* at 560:8-561:20; RX-0448 at [0023]. Ericsson does not dispute this. *See* CIB at 43-45. Moreover, "when a new content key is implemented, the implementation will be signaled to the clients so that the clients can begin utilizing the new content key," and this signaling can be a "predetermined bit in a packet" which "a client can check." RX-0462 at [0116]-[0117]. This qualifies as "detect content encryption key rotation boundaries between periods of use of different content encryption keys in decrypting retrieved content," which Ericsson also does not dispute. 178 Patent at cl. 16; *see* CIB at 43-45.

Peterka further describes a "key distribution server" which, "when each client requests a new key," responds with a "new program segment key," that is, the client "issue[s] requests to a license server . . . to retrieve a second content encryption key" that the client may then use "for decryption . . . using the transmitted key." RX-0462 at [0110], [0108]; 178 Patent at cl. 16. And the client requests the new key ahead of a key rotation boundary, for use after the key rotation boundary is reached. *See* RX-0462 at [0106], Fig. 8. Ericsson does not dispute this. *See* CIB at 43-45.

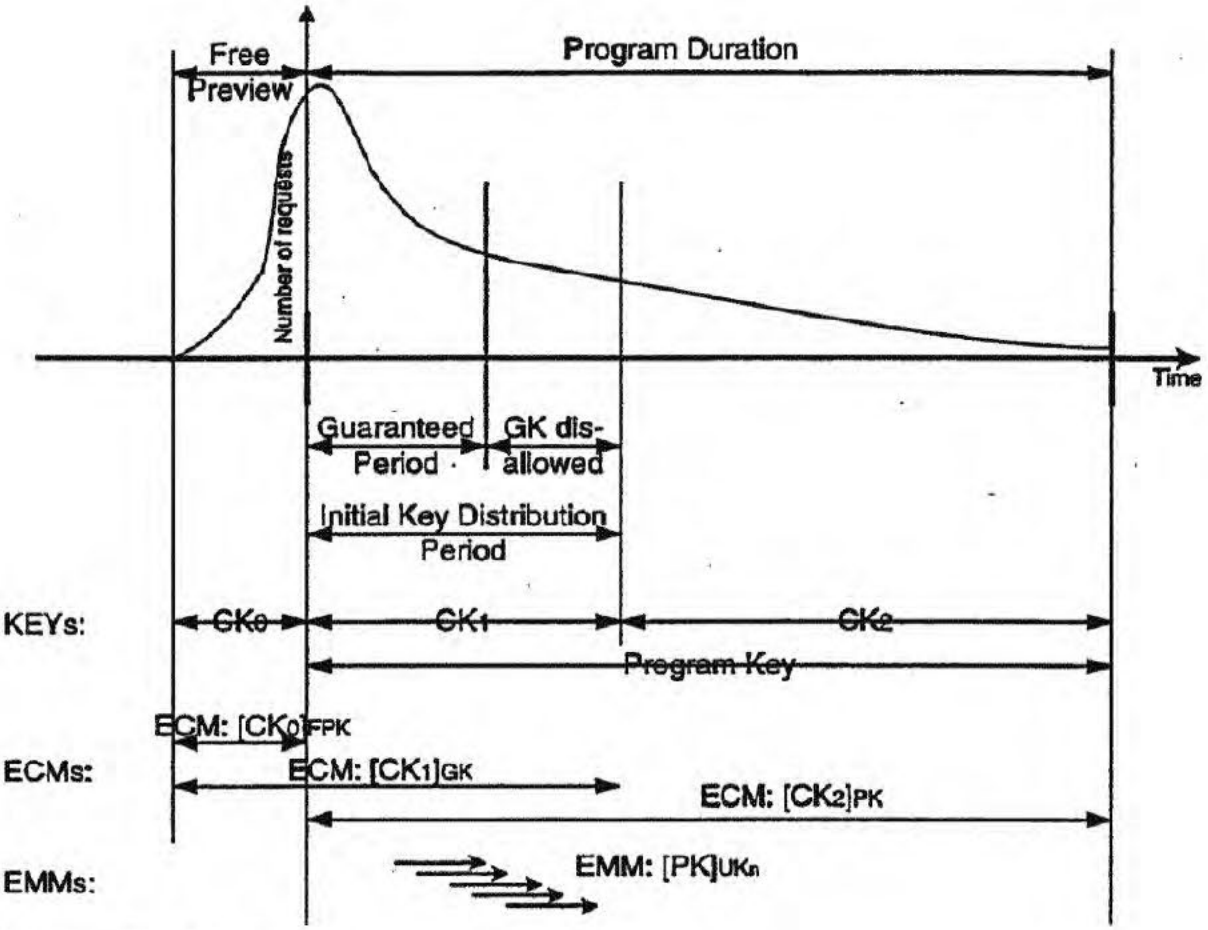
Ericsson's only substantial dispute, in fact, is over element 16[c]: "parse content information from the playback request response, the content information including content encryption keys, content encryption key identifiers, and content encryption key expiration times." *See* CIB at 43-45. Peterka teaches providing a field in an ECM for "the time remaining in the lifetime of the key," and ECMs are used to distribute keys, which the clients "parse," or "read out of" the ECMs, so the "content encryption key," "content encryption key expiration times," and "parse content information from the playback request response" limitations of element 16[c] are met. RX-0462 at [0121]-[0122]; Tr. (McDaniel) at 556:3-8. Ericsson does not dispute this. *See* CIB at 43-45.

Ericsson instead specifically disputes two aspects of this element. First, it argues that Peterka solely discloses "parity" bits, either 1 or 0, as the contention encryption key identifiers, and

[redacted]

that such numbers are not "unique," as required by the parties' agreed-upon and adopted claim construction. CIB at 44; Order No. 25 at 15. This is not a fair characterization of Peterka's disclosure. As Respondents correctly observe, Peterka discloses a "single-bit parity value" only as an example, and even a single-bit parity value uniquely distinguishes between two different keys. RIB at 47.

Respondents also point to paragraph [0121] of Peterka, which teaches using "key parity bits," apparently referring back to the "predetermined" bits disclosed in paragraph [0117] for distinguishing between keys, and the use of a "unique key" in the context of a "service key." RX-0462 at [0121]; *see* RRB at 47. Peterka defines a "service key" as one with a lifetime that "spans more than one program epoch" and with a "duration from several days to several months," and thus seemingly qualifies as a content encryption key. RX-0462 at [00960. Peterka also states that "a predetermined bit can be used to indicate if an old or current content key should be used as opposed to a new content key." RX-0462 at [0117]. The most reasonable reading of this statement is that it implies at least three possible keys may be used, an "old," a "current," and a "new" key. One embodiment involving three keys is illustrated in Figure 7B, where the three keys, designated "CK0," "CK1," and "CK2," each have different periods of use:



RX-0462 at Fig. 7B.

Peterka then describes the "1 or 0" single bit scenario, but only "[a]s one example," and one which clearly would not work with three or more keys. *Id.* The best reading of this entire paragraph and associated Figure 7B, therefore, is that the "predetermined bit"/"key parity bit" Peterka describes can, and sometimes must, be more than a single-digit binary number. *See* Tr. (McDaniel) at 558:13-23 ("somebody of skill in the art" would understand that "it can be any number of bits used"). So on balance the "content encryption key identifiers" limitation of element 16(c) is met. RX-0462 at [0121].

Ericsson secondly argues that ECM messages only ever contain a single key, key identifier, and key expiration time, but element 16[c] requires multiple "keys," identifiers," and "expiration times." CIB at 43; *see* CRB at 43-44. This is true but irrelevant because Peterka expressly discloses

[redacted]

"a concatenated message of program keys that is multicast to multiple clients," that is, multiple ECMs "packaged in a single multicast message." RX-0462 at [0122]; *see* RIB at 75 (citing *id.* at [0121]-[0125]) (internal quotation omitted). In other words, the "playback request response" can "comprise[] multiple ECMs," and Respondents' mapping is not limited to single ECMs. RIB at 75. Ericsson is mistaken in characterizing a "concatenated" or "single multicast" message as referring to "Entitlement Management Message (EMM)" messages, as opposed to ECMs, because ECMs are "group-addressed multicast messages," and so Peterka's "[a]lternative[]" scenario involving "a concatenated message of program keys that is multicast to multiple clients" clearly refers at least to ECMs. RX-0462 at [0104], [0121]; *see* CRB at 44; RIB at 75.

And because a concatenated message of ECMs can contain both current and future content encryption keys and key expiration times, the additional limitation of claim 17 is satisfied. *See* RX-0462 at [0117], [0121]-[0122]; RIB at 77. Thus, claims 16 and 17 in their entirety would have been obvious in view of the combination of Peterka and Bocharov. Ericsson has no countervailing evidence of non-obviousness (*see* CIB at 41-45), so under all the *Graham* factors claims 16 and 17 would have been obvious.

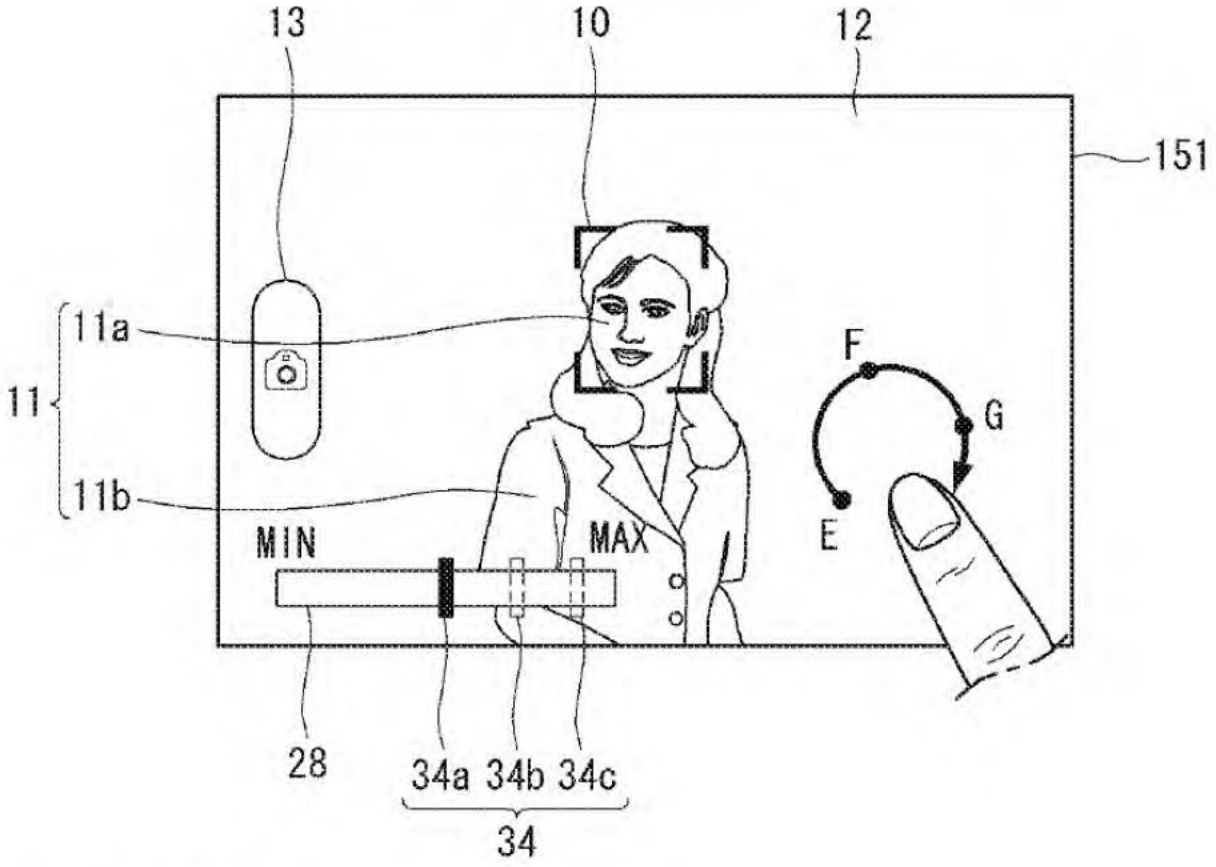
V. U.S. PATENT NO. 10,972,654

A. Overview

The 654 Patent relates to a touch screen for controlling a camera. *See* 654 Patent at 1:36-67. The disclosed touch screen allows the user to "conveniently and efficiently" control the camera when taking a photograph. *Id.* at 1:63-67. For instance, Figs. 22 and 23 illustrate a user interface wherein an auto focus guide (AFG) 10 is displayed at a specific point on a preview image 12 while a user can input a "touch trace" to adjust a camera setting. *See id.* at 13:10-18, 16:45-58. At the same time, an "indicator" or "progress guide" is displayed to indicate the degree and direction of adjustment:

[redacted]

FIG. 22



654 Patent at 19:51-63, Fig. 22.

B. Level of Ordinary Skill in the Art

Ericsson contends that a POSITA would have had a bachelor's degree in electrical engineering, computer engineering, computer science, or a similar discipline, and at least two years of experience in the design and/or development of user interfaces, with additional education substituting for experience and vice versa. *See* CIB at 12. Respondents contend that a POSITA would have had a bachelor's degree in computer science, computer engineering, or a similar discipline, and approximately two to three years of experience designing, researching, and/or developing touchscreen graphical user interfaces, including for phones, digital cameras, or other

devices, and/or experience designing, researching, and/or developing applications for such devices, with additional education substituting for experience and vice versa. *See* RIB at 85. Respondents further contend that these two proposals are not "materially different." *Id.* at 86. Respondents' proposal seemingly encompasses a skilled artisan lacking experience with touchscreen user interfaces, but is indeed otherwise not materially different from Ericsson's, nor is the level of ordinary skill particularly relevant to any disputed issue. Therefore, Ericsson's proposal is adopted.

C. Priority Date

As noted, the 654 Patent on its face claims priority to a Korean patent application filed on October 11, 2010. Respondents assert invalidity based on two prior art products, and although the patent on its face claims priority to a continuation-in-part application filed in 2009, Ericsson does not challenge the prior art status of Respondents' references. *See* CIB at 76-78; 654 Patent. The priority date, to the extent it is relevant, is therefore October 11, 2010.

D. Claims at Issue

Ericsson alleges infringement of independent claim 1, claim 3, which depends from claim 1, and claim 16, which depends from claim 1 via intervening dependent claim 15:

> 1. A mobile terminal comprising:
>
> a camera;
>
> a touch screen; and
>
> a controller configured to:
>
> control the touch screen to display preview images received via the camera;
>
> control the touch screen to display an auto focus guide at a specific point of the touch screen in response to a first touch input to the specific point;
>
> focus the preview images based on a location of the auto focus guide;
>
> determine an image capturing setting of the camera responsive to an object dragged along the touch screen, wherein a value of the image capturing setting is increased

[redacted]

responsive to the object being dragged in a first direction and is decreased responsive to the object being dragged in a second direction;

control the touch screen to display an indicator for indicating the current image capturing setting while maintaining the displayed auto focus guide at the specific point; and

capture an image according to the current image capturing setting.

3. The mobile terminal of claim 1, wherein: the indicator for indicating the current image capturing setting is displayed in response to the first touch input.

15. The mobile terminal of claim 1, wherein the controller is configured to increase the value of the image capture setting when the object is dragged in the first direction along a line and to decrease the value of the image capture setting when the object is dragged in the second direction along the line.

16. The mobile terminal of claim 15, wherein the image capturing setting corresponds to brightness to adjust brightness of objects in the image to be captured.

These claims are also asserted for DI purposes. *See* CIB at 68.

E. Claim Construction

No claims of the 654 Patent were construed during the *Markman* process, nor were any terms identified for construction in the parties' prehearing briefs. *See* Order No. 25; CPB at 154; RPB at 125-26. Ericsson now presents a claim construction dispute over one term in claim 1, "display an indicator for indicating the current image capturing setting while maintaining the displayed auto focus guide at the specific point." *See* CIB at 48-59. This dispute appears to be relevant only for analyzing validity, and is therefore addressed below in that section. And in their posthearing reply brief Respondents present a dispute regarding the order of operations in the claims, but as explained below this dispute is not addressed. *See* RRB at 53-54

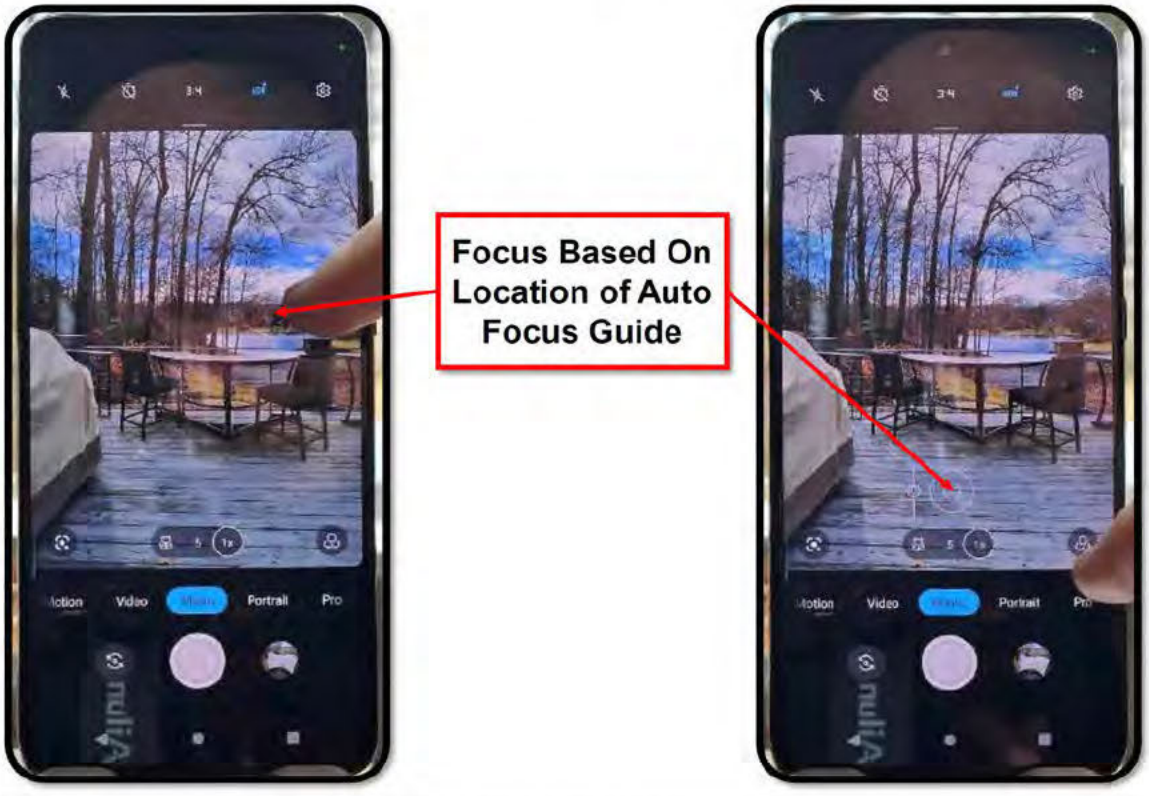
F. Infringement and Domestic Industry Technical Prong

Dr. Burger testified that with respect to the 654 Patent he examined three Accused Products, the Motorola Edge phone, the Moto G Stylus 5G phone, and the Lenovo Tab M10 tablet, and his infringement testimony focused on the Motorola Edge as representative of every other Accused

[redacted]

Product. Tr. (Burger) at 170:2-24. He also examined the Samsung Galaxy S23 for domestic industry purposes, but his opinion that it was representative of other DI Products was stricken. *Id.* at 172:19-174:10.

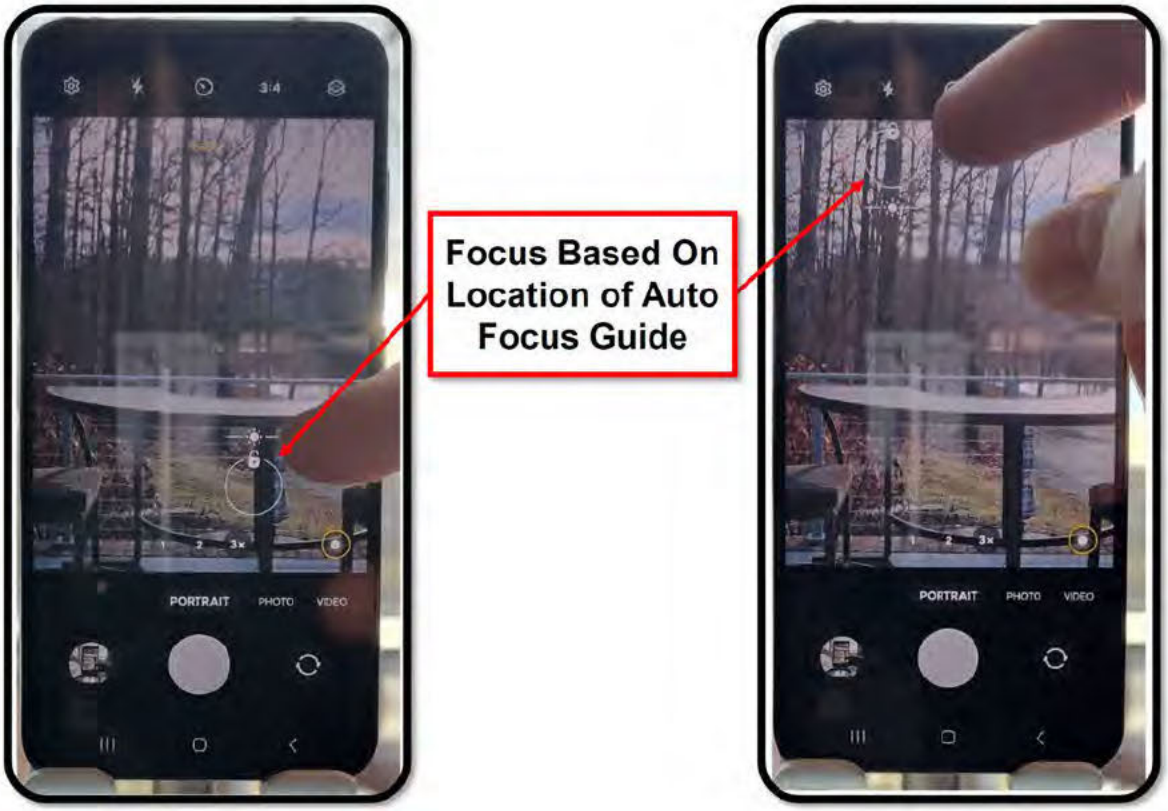
As to claim 1, he opined that the Edge and the S23 have a camera, a touchscreen, and a controller. Tr. (Burger) at 175:3-176:18. He also opined that their controllers are configured to perform the first three steps recited in the remainder of claim 1, namely: (1) control the touch screen to display preview images received via the camera; (2) control the touch screen to display an auto focus guide at a specific point of the touch screen in response to a first touch input to the specific point; and (3) focus the preview images based on a location of the auto focus guide. *Id.* at 176:19-184:8. Dr. Burger demonstrated this functionality with photographs of the Edge and the S23:



CX-1242.0019, CX-1242.0020

CDX-0003C.21;

[redacted]



CX-1242.0001, CX-1242.0004

CDX-0003C.22.

Dr. Burger further testified that the controllers in the Edge and the S23 are configured to perform the remaining steps of claim 1, namely: (1) determine an image capturing setting of the camera responsive to an object dragged along the touch screen, wherein a value of the image capturing setting is increased responsive to the object being dragged in a first direction and is decreased responsive to the object being dragged in a second direction; (2) control the touch screen to display an indicator for indicating the current image capturing setting while maintaining the displayed auto focus guide at the specific point; and (3) capture an image according to the current image capturing setting. Tr. (Burger) at 184:9-190:6. The specific image capturing setting he used for both phones was brightness. *See id.* at 188:18-189:8.

[redacted]

As for the dependent claims, claim 3 requires the "indicator for indicating the current image capturing setting" be displayed "in response to the first touch input," as well as the requirement of claim 1, from which claim 3 depends, that the auto focus guide be displayed in response to the first touch input. 654 Patent at cls. 1, 3. Dr. Burger opined that the S23 practices the claim because the "auto focus guide and an indicator" appear on first touch. Tr. (Burger) at 190:7-21, 194:17-21. For the Accused Products, however, his testimony was inconsistent. First, he opined that the "Motorola products" infringe (*id.*), then he testified that "on the Tab, only the indicator appears[,] [t]he slider bar does not appear" (*id.* at 190:20-21), but a motion to strike the testimony about the "Tab" was sustained (*id.* at 190:23-193:23). Second, he thereafter testified that the auto focus guide and indicator both appear "on the accused Lenovo phones" upon first touch (*id.* at 194:1-10), but Lenovo's Accused Products are all tablets, not phones. Third, he testified immediately thereafter that in the "Lenovo accused product" the indicator appeared "[w]hen I touched the auto focus guide." *Id.* at 194:11-16. Finally, on redirect examination he testified that the Lenovo tablet he examined "works the same way" as the Edge, in that "the auto focus guide appears and the indicator appears." *Id.* at 295:19-296:1.

Other than the testimony that the Lenovo tablet "works the same way," Dr. Burger's opinion is not inconsistent with the auto focus guide and indicator appearing one after the other rather than simultaneously. The "works the same way" statement is an outlier, and should have been the subject of further examination to show how it is consistent with his testimony on direct that the indicator only appears after the auto focus guide icon is touched. Tr. (Burger) at 194:11-16. In any event, the most reasonable understanding of all this is that for claim 3 the Motorola Edge is representative of Motorola's Accused Products, and that those products infringe, but that the Edge is not

[redacted]

representative of Lenovo's Accused Products, and that those products do not infringe because the auto focus guide appears on first touch but the indicator does not.

As to claims 15 and 16, which require brightness to be both increased and decreased by "dragg[ing]" an "object" along a line, Dr. Burger opined that the "Motorola products" and "Lenovo accused products" infringe, and that the S23 practices both claims. Tr. (Burger) at 195:3-197:1. In sum, all three Accused Products Dr. Burger examined infringe claims 1 and 16, Motorola's Accused Products infringe claim 3 but Lenovo's do not, and the S23 practices claims 1, 3, and 16. Respondents do not dispute this. *See* RIB at 86-90; RRB at 60-63.

G. Representativeness

The principal dispute between the parties is instead over representativeness. For infringement, Ericsson's substantive argument on representativeness is limited to a single paragraph in its posthearing brief, which cites to Dr. Burger's representativeness opinion and to his testimony that the Lenovo tablet he examined "works the same way" as the Motorola Edge. CIB at 60 (citing Tr. (Burger) at 170:3-24, 294:11-296:1). His "works the same way" opinion is not accepted, for the reasons given above, and his representativeness opinion is otherwise close to conclusory: all Accused Products include "cameras and processors and camera application[s] running similar operating systems" (Tr. (Burger) at 170:18-24), and they run "substantially the same code and they behave similarly" (*id.* at 197:7-10). He did not identify the operating systems, or how they are "similar" (which implies that there are differences), nor did he testify he examined the code on even a single Accused Product, much less all of them. Respondents, to be sure, did not offer any evidence that the various Accused Products work differently, but Dr. Burger's opinion would have been more persuasive had he simply tested all 17 accused Motorola phones and all 14 accused Lenovo tablets, a task which seemingly could have been completed in a few hours at most. *See* RIB at 86-89.

[redacted]

Particularly in view of Dr. Burger's inconsistent testimony on whether the Lenovo Tab M10 infringes claim 3, the representativeness of all Accused Products has not been shown by a preponderance of the evidence.

For domestic industry technical prong, Ericsson's substantive argument on representativeness is similarly limited to a single paragraph in its posthearing brief, which cites to Dr. Burger's testimony. CIB at 68-69 (citing Tr. (Burger) at 172:19-173:6, 197:2-6). As with the Accused Products, he opined that the DI Products run "substantially the same code" (Tr. (Burger) at 197:2-6), but the other testimony on which Ericsson relies was struck, as Respondents note (*see id.* at 173:2-174:10; RRB at 63). And as Respondents also note, Dr. Burger did not review any source code for any DI Product, did not identify any software running on any DI Product, and did not otherwise show how the various DI Products are similar, except for his conclusory opinion that they run substantially the same code. *See* RRB at 62-63 (citing Tr. (Burger) at 267:5-268:18). This is insufficient to show that the S23 is representative of any other DI Product, so for technical prong purposes the Samsung Galaxy S23 alone has been shown to practice claims 1, 3, and 16.

H. Validity

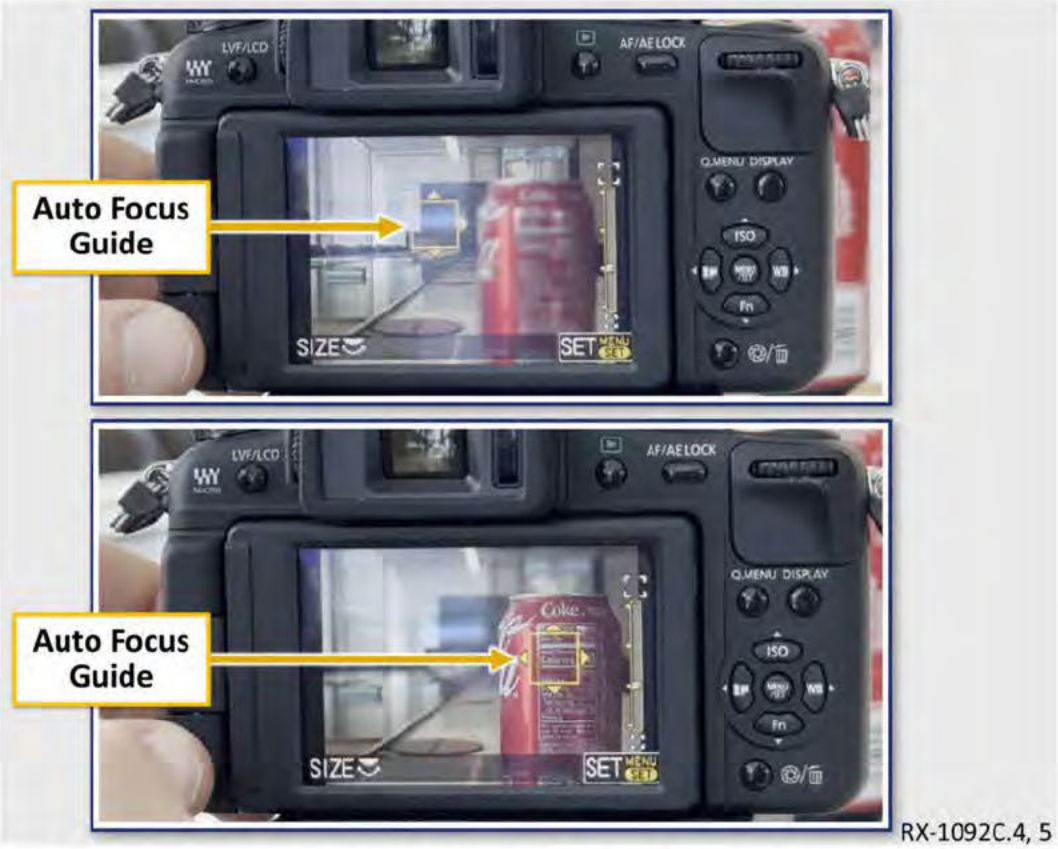
Lenovo argues that "the Asserted Claims of the '654 Patent are invalid as anticipated and obvious over the Panasonic [Lumix DMC-G2] Camera and the Samsung Galaxy S, and also are directed to patent ineligible subject matter." RIB at 2. The Lumix DMC-G2 ("Panasonic Camera") (RPX-12, RX-0437) was on sale in the U.S. no later than May 29, 2010, the Galaxy S (RPX-10, RX-0607) was on sale in the U.S. no later than July 5, 2010, and as noted Ericsson does not dispute that both products are prior art under 35 U.S.C. § 102(a) (pre-AIA). *See* Tr. (Bederson) at 607:6-19, 633:11-634:2; RIB at 91, 120; CIB at 76-78.

[redacted]

1. 35 U.S.C. § 102 – Anticipation

a) Panasonic Camera

The Lumix DMC-G2 is a mobile terminal comprising a camera, touchscreen, and controller. *See* Tr. (Bederson) at 611:9-613:5. Respondents' expert, Dr. Benjamin J. Bederson, opined that the controller is configured to perform the first three steps recited in the remainder of claim 1, namely: (1) control the touch screen to display preview images received via the camera; (2) control the touch screen to display an auto focus guide at a specific point of the touch screen in response to a first touch input to the specific point; and (3) focus the preview images based on a location of the auto focus guide. *See id.* at 613:8-615:5. He illustrated this functionality with photographs of the Panasonic Camera's touchscreen:



RX-1092C.4, 5

RDX-0002.24. Ericsson suggests that the "control the touch screen to display an auto focus guide at a specific point of the touch screen in response to a first touch input to the specific point" element

[redacted]

is not met, but this is refuted by the user manual. *See* CIB at 78; CRB at 67; RX-0612.1593 ("By using the touch panel, you can move the [auto focus] area by touching the subject to focus on").

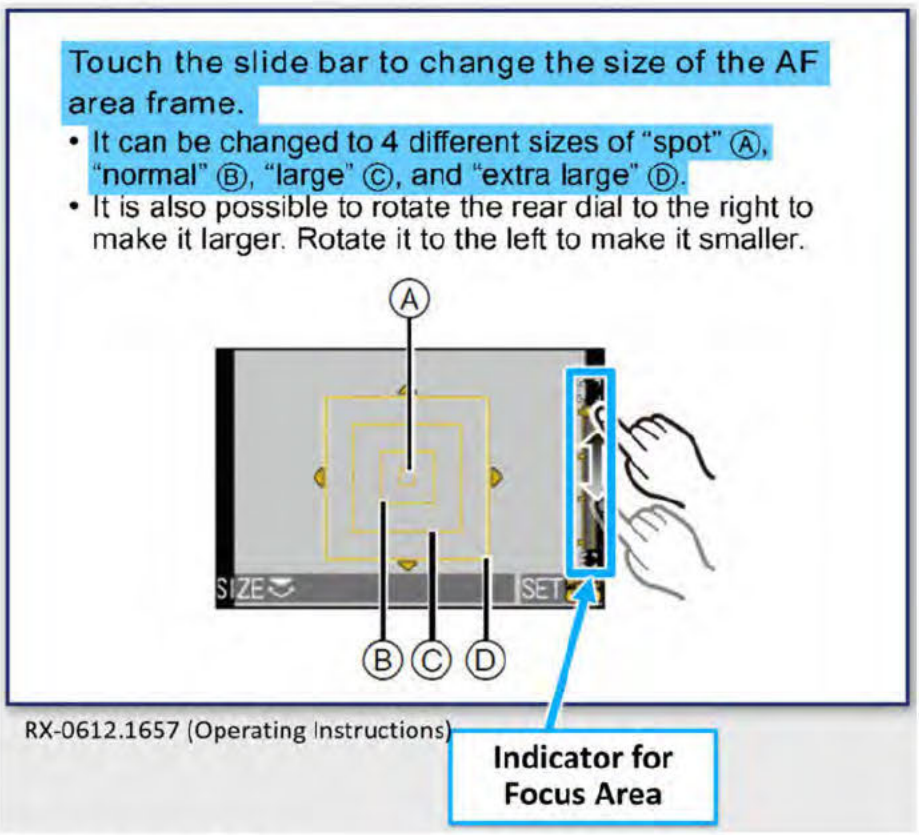
Respondents analyze the last three elements in two ways, one relevant to dependent claim 3 and one relevant to dependent claim 16. *See* RIB at 98-120. For claim 3, Respondents map the size of the focus area to the claimed image capturing setting ("Focus Area Mapping"), where the auto focus guide and the indicator appear simultaneously upon first touch, as required by that claim. *See id.* at 98-105, 117-18. For claim 16, Respondents map brightness to the image capturing setting ("Brightness Mapping"), as required by that claim, but for that functionality the auto focus guide and the indicator do not appear simultaneously, and so do not satisfy claim 3. *See id.* at 118-20. For both image capturing settings, some of Ericsson's points in opposition are not found in its prehearing brief. *Compare* CPB at 154, 166-69 *with* CIB at 48-59 *and* CRB at 51-65. Respondents accordingly moved (1376-048) to strike these points. *See* EDIS Doc. ID 834324. As explained below, Ericsson's arguments have been considered, and all asserted claims have nonetheless been found invalid, so Respondents have not been prejudiced by Ericsson's new arguments and their motion is denied.

Starting with Respondents' Focus Area Mapping, the next element in claim 1 is "determine an image capturing setting of the camera responsive to an object dragged along the touch screen, wherein a value of the image capturing setting is increased responsive to the object being dragged in a first direction and is decreased responsive to the object being dragged in a second direction." 654 Patent at cl. 1. As shown in the images above, on the right-hand side of the screen is a vertical slider bar controlling the "size of the [auto focus] area frame," and Dr. Bederson opined that this meets the claim limitation. RX-0612.1657; *see* Tr. (Bederson) at 615:9-616:7. Ericsson apparently concedes that this element is met because it acknowledges "the size and focus area of an auto focus

[redacted]

guide" can be changed. CIB at 78. The last element of claim 1 is "capture an image according to the current image capturing setting," which is accomplished by "tak[ing] a picture," that is, by pressing the shutter button. Tr. (Bederson) at 617:16-618:8; *see* RX-0612.1658. Ericsson does not dispute this element is satisfied. *See* CIB at 78.

The principal dispute between the parties is over the remaining element of claim 1, "control the touch screen to display an indicator for indicating the current image capturing setting," and in particular its requirement that this be performed "while maintaining the displayed auto focus guide at the specific point." *See* CIB at 78-79; CRB at 67-69. Dr. Bederson opined that this is satisfied in the Panasonic Camera because the displayed auto focus guide changes size to indicate the focus area, while remaining centered on the same point. *See* Tr. (Bederson) at 617:1-13. This is also shown in the user manual:



RDX-0002.27 (citing RX-0612.1657).

[redacted]

Ericsson contends that "[c]hanging the auto focus guide to alter its size and focus area is not 'maintaining' the 'displayed auto focus guide.'" CIB at 79. Inasmuch as this presents a claim construction issue, Ericsson does not actually propose a construction (nor do Respondents), but argues that "maintaining" is not satisfied unless the auto focus guide "continues to be displayed with exactly the same location, size, and area of focus." *Id.* at 51; *see* CRB at 52 (arguing that in every relevant element, both the indicator must be displayed and the auto focus guide must be maintained at the specific point). One embodiment disclosed in the specification does display an auto focus guide that keeps the same location, size, and area of focus when the "position of the lens" is adjusted, but in that embodiment there is seemingly no need to change the guide's location, size, or area, because the lens position is indicated with a marker rather than by reframing the image. 654 Patent at 18:58-59. In a second disclosed embodiment the auto focus guide stays centered on the point touched while the focus area changes size, although the change in focus area is automated rather than user-controlled. *See id.* at 17:1-41. So no disclosed embodiment is "rule[d] out" by a construction permitting the auto focus guide to change size, area, appearance, or some other feature (other than the "specific point" where it is centered), nor does any disclosed embodiment support Ericsson's proposed construction. CIB at 56.

The prosecution history is similarly lacking in support. *See* RIB at 110-12; CRB at 68-69. The Examiner had rejected the claims as anticipated by a reference called Higashino (RX-1044), on the basis that Higashino taught moving the auto focus frame from one point to another on the display by a touch-and-drag action. *See* RX-0127.0667-.0668. The applicant then added new claim 21 that included the requirement of "maintaining the displayed auto focus guide at the specific point" while the image capturing setting is changed. *See id.* at .0668-.0671. The applicant argued that this overcame the Section 102 rejection based on Higashino, and although examination continued with

[redacted]

additional amendments, the Examiner agreed that Higashino did not disclose "maintaining the displayed auto focus guide at the specific point." *See id.* at .0668-.0669, .0699-.0700. There was no discussion of maintaining the same size or area of the auto focus guide, however, so the fact that Higashino also disclosed changing the size of the focus area is beside the point. *See id.* at 48-59; CRB at 63-65.

And the claim language itself is silent on size and area because it merely requires "maintaining the displayed auto focus guide *at the specific point*," with no explicit requirement that the auto focus guide otherwise remain unchanging. 654 Patent at claim 1 (emphasis added). Only two elements of the claim even require display of the auto focus guide at all, the fifth ("control the touch screen to display an auto focus guide") and the eighth ("control the touch screen to display an indicator . . . while maintaining the displayed auto focus guide"), no particular form of auto focus guide is required (it could conceivably be just a dot, for example), and nothing in the intrinsic evidence suggests that the auto focus guide cannot do double duty as both auto focus guide and part of the indicator, so long as it is "maintain[ed] . . . at the specific point." *Id.* On balance, to the extent there is a claim construction dispute over this element, "maintaining the displayed auto focus guide at the specific point" is given its plain and ordinary meaning.

Given this understanding, the plain and ordinary meaning is clearly met because the center of the auto focus guide is "maintain[ed]" at the same point on the touch screen while the displayed "size and corresponding focus area" of the auto focus guide changes to "indicat[e] the current image capturing setting," as Ericsson itself observes. CIB at 79. Therefore, because the other limitations of claim 1 are also met, the Panasonic Lumix DMC-G2 anticipates claim 1 under Respondents' Focus Area Mapping.

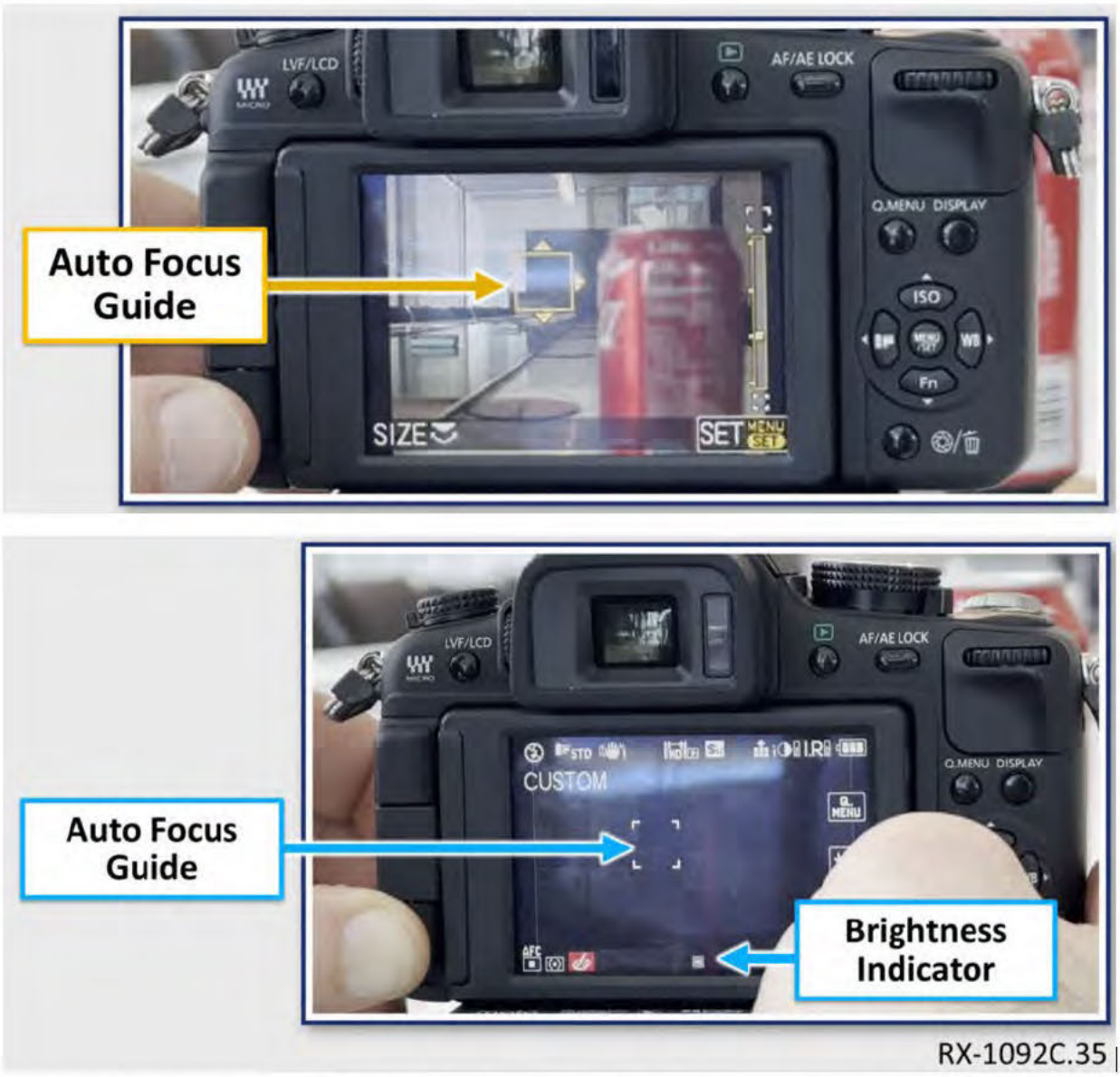
[redacted]

As to claim 3, which requires the indicator to be displayed in response to the first touch input, Dr. Bederson opined that this limitation is met. *See* Tr. (Bederson) at 622:16-623:9. This functionality is clearly demonstrated in RX-0746. Ericsson does not contest this when the image capturing setting is the size of the focus area, so the Panasonic Lumix DMC-G2 also anticipates claim 3 under Respondents' Focus Area Mapping. *See* CIB at 78-79; CRB at 67-72.

Turning to Respondents' Brightness Mapping, that setting may be adjusted on the Panasonic Camera using horizontal slide bars displayed on the touch screen that control any of "brightness," "shutter speed," or "aperture value." *See* Tr. (Bederson) at 623:24-624:6. This satisfies the element "determine an image capturing setting of the camera responsive to an object dragged along the touch screen, wherein a value of the image capturing setting is increased responsive to the object being dragged in a first direction and is decreased responsive to the object being dragged in a second direction." 654 Patent at cl. 1. It also satisfies the elements added by claims 15 and 16, which require dragging the object along a line, with brightness as the image capturing setting. 654 Patent at cls. 15, 16. And the last element of claim 1, "capture an image according to the current image capturing setting," is again accomplished by taking a picture. Tr. (Bederson) at 626:11-17. Ericsson does not dispute these elements are satisfied. *See* CIB at 80-86.

As with the Focus Area Mapping, the principal dispute between the parties is over the remaining element of claim 1, "control the touch screen to display an indicator for indicating the current image capturing setting while maintaining the displayed auto focus guide at the specific point." *See* CIB at 80-86; CRB at 67-72. Dr. Bederson testified that the brightness indicator and auto focus guide are both displayed, and the auto focus guide stays centered at the specific point. Tr. (Bederson) at 626:2-10. As shown below, when the brightness indicator is displayed on the Panasonic Camera, the auto focus guide does not move, although its appearance changes:

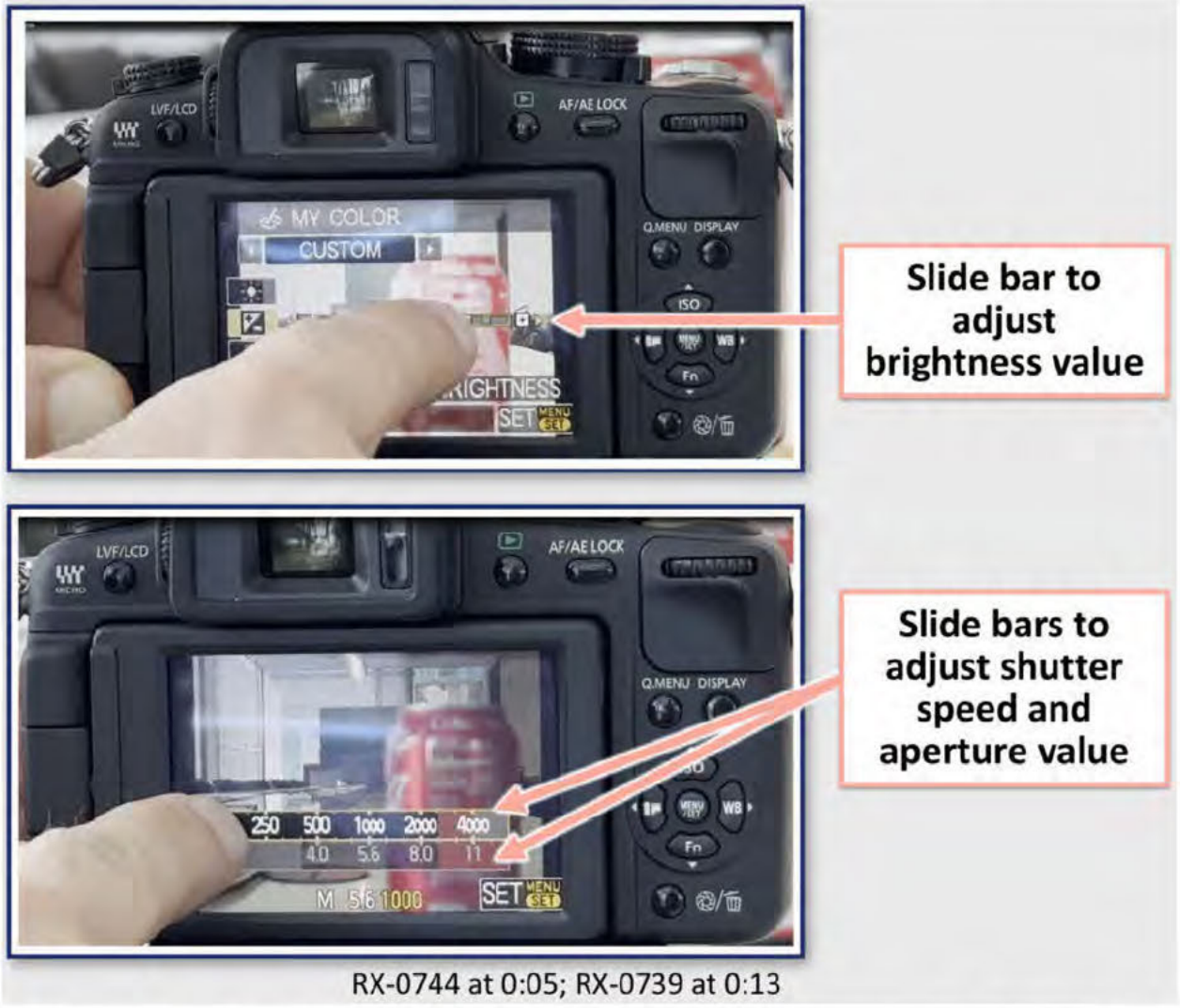
[redacted]



RDX-0002.24 (top, citing RX-1092.5); RDX-0002.41 (bottom, citing RX-1092.35); *see* Tr. (Bederson) at 626:2-10.

But although the auto focus guide's location stays the same, it disappears from the display on the Panasonic Camera when any of the three brightness parameters are made adjustable with the "slide bar":

[redacted]



RX-0744 at 0:05; RX-0739 at 0:13

RDX-0002.40; *see* Tr. (Bederson) at 629:20-630:2. It apparently disappears from the display, in fact, merely by entering an operating mode necessary to adjust brightness or aperture value, although Dr. Bederson testified it was maintained when adjusting shutter speed using a manual dial; this functionality is addressed further below. *See* RX-0612.1671-74 (entering one of three different modes and then adjusting aperture value or shutter speed), .1684-85 (entering "My Color Mode" and then adjusting brightness); Tr. (Bederson) at 628:2-22.

Respondents contend that the claim language does not require "that the auto focus guide must be maintained while a setting is adjusted." RRB at 52. But the "control the touch screen to display an indicator" element does require "maintaining the displayed auto focus guide at the

[redacted]

specific point." 654 Patent at cl. 1. Respondents do not explain how causing the auto focus guide to appear, then causing it to disappear to adjust the image capturing setting, and then causing it to reappear (admittedly at the same location), constitutes "maintaining" the "displayed" auto focus guide, that is, their argument and evidence do not give effect to those words in the claim.

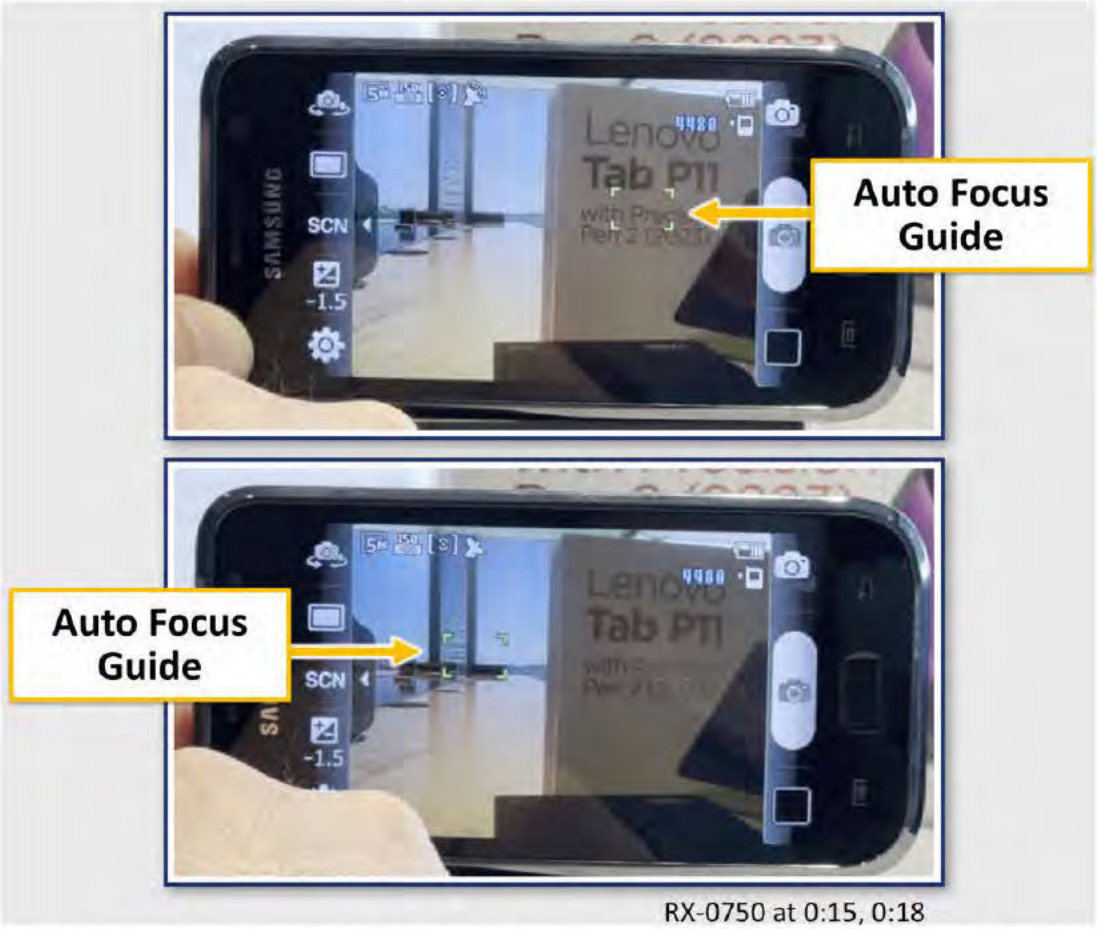
Respondents' strongest argument on this point is that there is no necessary order to the operations the controller is configured to perform, and in particular that determining the image capturing setting could be performed before placement of the auto focus guide with a touch input. *See* RRB at 53-54. As noted, the steps of a method claim "are not ordinarily construed to require" an order, but can be so construed in certain circumstances, and this principle applies equally to apparatus and system claims involving operations carried out by a computer or other electronic device. *Interactive Gift Express*, 256 F.3d at 1342; *see Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1368-69 (Fed. Cir. 2003) (imposing no order of steps on a "digital computer system" programmed to perform a method); *Function Media*, 708 F.3d at 1319-20 (holding that two steps performed by a "computer system" comprising a "computer controller" must be performed in a particular order). Respondents, however, did not raise this argument in their prehearing brief, but raised it in their post-hearing reply brief, so Ericsson has not had an opportunity to be heard on it. *See* RPB at 125-26, 146-57; RRB at 53-54. Regardless of the argument's merit, construing the order of operations, if any, would thus be inappropriate, and Respondents have not shown how the "displayed" auto focus guide is "maintain[ed]." Respondents therefore also have not shown that the Panasonic Lumix DMC-G2 anticipates any claim under its Brightness Mapping.

Accordingly, based on the above, Respondents have shown that the Panasonic Lumix DMC-G2 anticipates claims 1 and 3.

[redacted]

b) Samsung Galaxy S

The Galaxy S is a mobile terminal comprising a camera, touchscreen, and controller. *See* Tr. (Bederson) at 635:12-24. Dr. Bederson opined that the controller is configured to perform the first three steps recited in the remainder of claim 1, namely: (1) control the touch screen to display preview images received via the camera; (2) control the touch screen to display an auto focus guide at a specific point of the touch screen in response to a first touch input to the specific point; and (3) focus the preview images based on a location of the auto focus guide. *See id.* at 636:6-637:7. He illustrated this functionality with photographs of the Galaxy S touchscreen:



RDX-0002.50. Ericsson suggests here, too, that the "control the touch screen to display an auto focus guide at a specific point of the touch screen in response to a first touch input to the specific

[redacted]

point" element is not met, but this is as unpersuasive for the Galaxy S as it was for the Panasonic Camera. *See* CIB at 86.

Two of the remaining three elements of claim 1 are essentially undisputed. When the soft key on the left of the screen (shown above with "+/-" and "-1.5") is tapped, a linear slider is displayed showing what the Galaxy S calls "Exposure value," which Dr. Burger agreed corresponds to brightness. Tr. (Bederson) at 634:6-635:7; *see* Tr. (Burger) at 946:19-20. That parameter may be adjusted, and the screen may be touched again to show the auto focus guide, where the image focuses on what is contained in the guide, and then the image may be captured. *See* Tr. (Bederson) at 634:6-635:7. This satisfies the two elements "determine an image capturing setting of the camera responsive to an object dragged along the touch screen, wherein a value of the image capturing setting is increased responsive to the object being dragged in a first direction and is decreased responsive to the object being dragged in a second direction" and "capture an image according to the current image capturing setting." 654 Patent at cl. 1. Ericsson does not dispute this, nor does it dispute that after adjustment the auto focus guide and indicator are displayed simultaneously. *See* CIB at 86-90.

Instead, once again, Ericsson disputes the satisfaction of the "maintaining" limitation because "the auto focus guide disappears completely when a user attempts to use a touch screen to adjust" exposure value. CIB at 86. Respondents' rebuttal to this is essentially the same as it is for the Panasonic Camera, and is just as ineffective. *See* RIB at 125-27; RRB at 69-72. Respondents therefore have not shown that the Samsung Galaxy S anticipates any asserted claims.

2. 35 U.S.C. § 103 – Obviousness

As to all three asserted claims, Respondents advance a single-reference obviousness case involving the Panasonic Camera (*see* CIB at 108-20), and a single-reference obviousness case

[redacted]

involving the Galaxy S (*see id.* at 127-32). Because the Panasonic Camera anticipates claims 1 and 3, and anticipation is the "epitome of obviousness," such that objective indicia of non-obviousness "are absent from anticipation," the obviousness of those claims need not be addressed for the Panasonic Camera. *See Certain Wearable Electronic Devices With ECG Functionality and Components Thereof*, Inv. No. 337-TA-1266, Comm'n Op. at 45-46 (Dec. 22, 2022) (citations omitted). Their obviousness will nonetheless be addressed in the alternative, based on application of Ericsson's proposed construction of "maintaining the displayed auto focus guide at the specific point" as "continuing to display the auto focus guide with exactly the same location, size, and area of focus." *See* CIB at 51.

Preliminarily, reviewing some of the functionality of the Panasonic Camera and the Galaxy S together is helpful in understanding three significant points about the scope and content of the prior art and the differences between the claimed invention and the prior art. First, for both products the "object dragged along the touch screen" is a slider on a linear scale, or "slide[r] bar," as opposed to a screen-displayed circular dial as in Figure 19 of the 654 Patent, so the element added by claim 15 is found in both references. 654 Patent at cl. 15; *see id.* at 18:60-65; Tr. (Bederson) at 623:24-624:9, 637:8-638:1.

Second, the Panasonic Camera has an alternate way of adjusting at least shutter speed, by using a manual dial, where the auto focus guide is displayed without changing location, size, area, or appearance even while making an adjustment. *See* Tr. (Bederson) at 628:2-22. Dr. Bederson described this as "set[ting] the position of the auto focus guide centered at the point that I touched," then "drag[ging] my finger across [a manual] dial," which "brings up the two sliders for shutter speed and aperture," and where "adjust[ing] that dial . . . changes the value of the shutter speed."

[redacted]

Id. He then demonstrated during the hearing that the displayed "auto focus guide is maintained at the point that I touched" even while he "adjust[ed] the shutter speed" with the dial (*id.*):



RDX-0002.70. He also demonstrated at the hearing how "press[ing] this button" caused the camera to enter a mode where the "slider bar" appeared and shutter speed could be adjusted by touching and dragging the slider bar via the touch screen, but, as discussed above, where the auto focus guide disappeared. Tr. (Bederson) at 628:23-629:12.

Third, every relevant image, icon, and functionality is found in both prior art products, often in combination with each other: the auto focus guide, indicator of current image capturing setting, slider bar, image capturing setting adjustment functionality via a touch screen, and, more specifically, brightness adjustment functionality. What is missing from a single prior art product, as Ericsson notes, is a narrow combination of elements—as relevant for claims 1 and 16, maintaining the auto focus guide in the display while adjusting brightness using a slider bar on the touch screen. *See* CIB at 77. The question, at least for these claims, is thus whether this combination of elements would have been obvious to a skilled artisan in light of the *Graham* factors.

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For the Panasonic Camera, Dr. Burger opined that its brightness-related functions "all teach away from the claimed invention" (Tr. (Burger) at 881:12-14), and that the "conventional wisdom was to show only the setting being adjusted" (*id.* at 894:2-6). The first point is not well supported and appears to be based on an incorrect legal standard; Dr. Burger's only "teaching away" explanation is that the auto focus display is not maintained during brightness/shutter speed adjustment on the touch screen, which does not establish teaching away. *See id.* at 882:7-11 ("because, again, we do not have the displayed auto focus guide"); *Depuy Spine, Inc. v. Medtronic Sofamor Danek*, 567 F.3d 1314, 1327 (Fed. Cir. 2009) (a reference teaches away if it "criticize[s], discredit[s], or otherwise discourage[s] investigation into the invention claimed") (citation and quotation marks omitted). The second point is refuted by the Panasonic Camera itself. Clearly it was not truly "conventional" to display only the setting being adjusted, without the auto focus guide also being displayed, because the Panasonic Camera did display both simultaneously, although with adjustment by a manual dial rather than by touch-and-drag via the touch screen. *See* Tr. (Bederson) at 628:2-22.

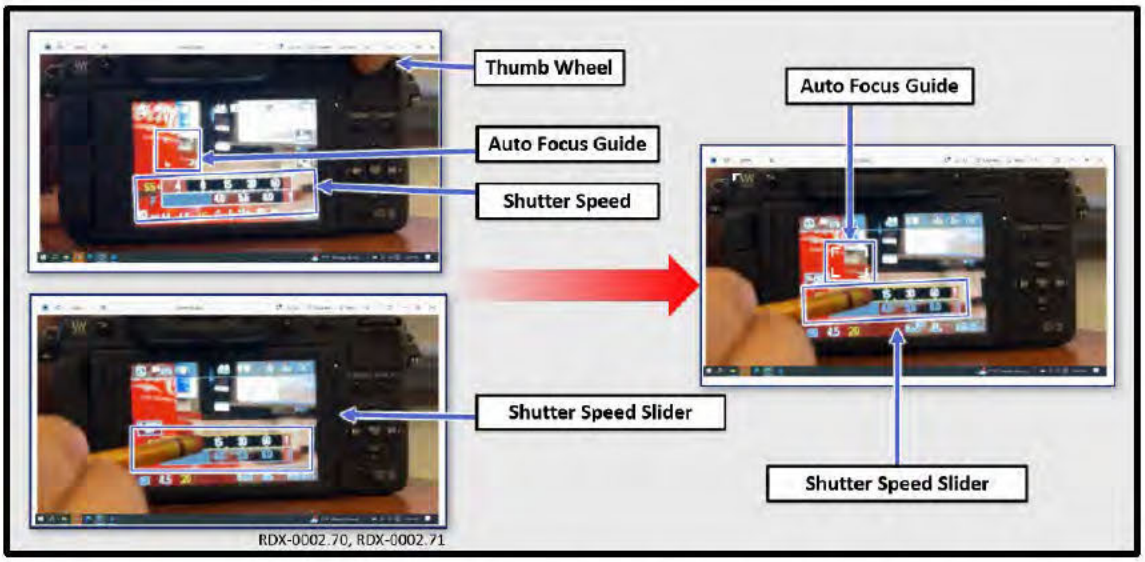
Ericsson's only other significant points in opposition to an obviousness finding are that "manually interacting with a complex array of dials, buttons, and soft buttons" fails "to meet the requirements of elements (g), (h), and (i) of claim 1" (CRB at 69, 71), and there are objective indicia of non-obviousness. But the claims only require a particular operation method (namely, touching and/or dragging) to "display an auto focus guide" and to adjust the image capturing setting. 654 Patent at cls. 1, 15. Nothing in the claim language rules out the use of thumbwheels, buttons, or other physical or soft control mechanisms for any other operation, so there is no relevance to Ericsson's first point. As for its second point, Ericsson's prehearing brief mentions two objective indicia, commercial success and teaching away by the prior art. *See* CPB at 172-73. But Ericsson

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has abandoned commercial success—and for no discernable reason, because the Galaxy S23 has surely experienced it. *See* CIB at 90-95; CRB at 74-76. And its evidence of teaching away consists of Dr. Burger's unpersuasive testimony, plus a citation to the Galaxy S user manual, which instructs users to "make any necessary adjustments" to exposure value before tapping the screen to set the auto focus guide. *See* CIB at 90-95; CRB at 76 (citing RX-0607.0047-.0048). As Dr. Bederson demonstrated, though, the Galaxy S is perfectly capable of setting the auto focus guide before adjusting exposure value, and the user manual instructions in any event do not meaningfully criticize, discredit, or otherwise discourage taking a photo by following an order of steps different from the order in claim 1. So Ericsson's objective indicia have minimal weight at best.

And such flimsy arguments against obviousness are overcome by Dr. Bederson's opinion that the claimed invention could have been achieved by "nothing more than taking the auto focus guide that was already displayed and continu[ing] to display it, while dragging" the slider bar. Tr. (Bederson) at 629:24-630:2. Respondents illustrate this by combining photographs of the touch screen taken during the hearing and admitted as demonstrative exhibits:

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RIB at 114 (combining and annotating RDX-0002.70 (adjustment using the thumb wheel) and RDX-0002.71 (adjustment using the slider bar)).

As Dr. Bederson opined, a skilled artisan would have had a reason to make this change because "it would be useful to a user to see where the focus guide was set when they are adjusting the shutter speed to help them better understand what the image that they eventually capture would look like." Tr. (Bederson) at 631:5-12. A skilled artisan would also have had a reasonable likelihood of success because such a change would have been "a routine modification" that had already been implemented on the same product, albeit involving use of a manual dial for setting adjustment. *Id.* at 630:18-20. And Dr. Burger had nothing to say about motivation to combine, or whether the needed modification would have been successful, and even agreed that "how many settings to show in the screen at a particular time" is a "design choice." Tr. (Burger) at 945:24-946:1. On the whole, then, in view of the broad scope and content of the prior art, the knowledge of a person of ordinary skill, the very small differences between the claimed invention and the prior art, and the virtually nonexistent objective indicia of non-obviousness, claims 1 and 16 would have been obvious over the Panasonic Lumix DMC-G2. For similar reasons, Claim 16 also would have

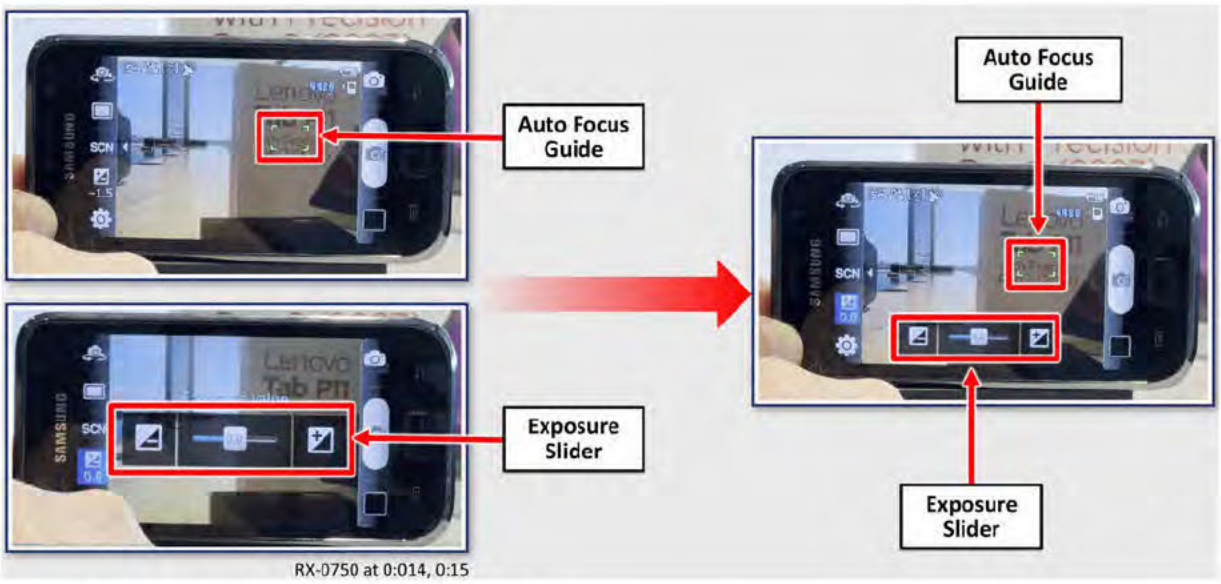
[redacted]

been obvious over the Panasonic Lumix DMC-G2 under Respondents' broader interpretation of the "maintaining" element.

Obviousness has not been shown for claim 3, though, because Respondents' obviousness case discusses only the Brightness Mapping, that is, shutter speed and aperture value as the image capturing settings. *See* RIB at 112-17. They point to no expert opinion or other evidence that it would have been obvious to display both the auto focus guide and the shutter speed or aperture value indicator in response to the first touch input, or that it would have been obvious to adjust the focus area without changing the size of the auto focus guide. *See id.* There are, admittedly, only "a finite number of identified, predictable solutions" to the problem of how to display the necessary information while simultaneously permitting adjusting of the image capturing setting, most of which seem to have been incorporated into the Panasonic Camera already. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007); *see* RIB at 115-16. But this consideration is outweighed by the lack of actual evidence regarding a reason to combine the pertinent elements required by claim 3 with an expectation of success. So Respondents have not shown by clear and convincing evidence that claim 3 would have been obvious (again, assuming that the Panasonic Camera did not practice the "maintaining" element under Ericsson's proposed claim construction).

As for the Galaxy S, Respondents' case is somewhat weaker for claims 1 and 16 relative to the Panasonic Camera, because although the phone does display all the required information at various times, unlike the Panasonic Camera there is no mode in which exposure value is adjustable while simultaneously displaying the auto focus guide. But Dr. Bederson opined that it would have been "obvious to simply take those two existing user interface elements . . . and display them both on the same screen," because both elements "already exist and they would both operate in exactly the same way":

[redacted]



Tr. (Bederson) at 639:15-640:2; RDX-0002.55.

He further opined that a skilled artisan could have made such a modification with a reasonable likelihood of success, because it would have been "routine," and would have been motivated to do so for the same reason as with the Panasonic Camera. Tr. (Bederson) at 640:3-16. Ericsson's arguments against this evidence repeat the points above pertaining to the Panasonic Camera, and add the teaching away argument based on the Galaxy S user manual instructions (which, again, do not truly teach away from the specific combination Dr. Bederson opined would have been obvious), as well as the fact that the auto focus guide is never displayed when any other camera setting is adjusted (a point that amounts to simply noting that the element is not disclosed). *See* CIB at 86-90; CRB at 72-74. On balance, then, in view of the broad scope and content of the prior art, the knowledge of a person of ordinary skill, the small differences between the claimed invention and the prior art, and the virtually nonexistent objective indicia of non-obviousness, claims 1 and 16 would have been obvious over the Samsung Galaxy S, under either party's interpretation of the "maintaining" element.

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Claim 3 would not have been, however, mainly because Respondents' case has an inconsistency. For purposes of claim 1, Respondents identify the "indicator for indicating the current image capturing setting" as the soft key on the left of the screen containing "+/-" and "-1.5." *See* RIB at 125-26. This indicator is displayed even before display of the auto focus guide by the first touch, and so does not literally satisfy claim 3. *See* RX-0750; RX-0607.0047. For purposes of claim 3, however, Respondents identify the indicator as "the slide bar for adjusting exposure value." RIB at 131; *see* Tr. (Bederson) at 640:20-23. The slide bar disappears after completing the exposure value adjustment, at which point the auto focus guide reappears, so this also does not literally satisfy claim 3. *See* RX-0750. Dr. Bederson's opinion on claim 3, that it would have been "obvious to display both of these elements . . . in response to a single touch," may well be true, but it does not align with his or Respondents' analysis of claim 1, from which claim 3 depends, because the identity of "both of these elements" changes between the two claims. So Respondents' theory of obviousness is impossible to parse and they have not made out a prima facie case of obviousness of claim 3, even in view of Ericsson's notably weak countervailing evidence. Accordingly, claim 3 has not been shown to have been obvious over the Samsung Galaxy S.

3. 35 U.S.C. § 101 – Subject Matter Eligibility

Respondents contend that the asserted claims of the 654 Patent are invalid under Section 101 because "the claims are directed to the abstract idea of displaying and manipulating information to adjust camera settings using conventional hardware" and "each of the claimed functions was long-known, routine, and conventional in the art." RIB at 2, 133. As noted, resolving disputes under Section 101 can be challenging, and the approach used here involves ruling out certain categories of caselaw, narrowing the issues presented, and reasoning by analogy to cases addressing similar technology.

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Alice teaches that the first analytic step is to determine whether the focus of the claims, or their character as a whole, is directed to excluded subject matter. *See CardioNet*, 955 F.3d at 1367-68 (citing *Alice*, 573 U.S. at 216-18). Adopting Ericsson's approach, the focus here is narrowed specifically to "the claimed advance over the prior art." *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1292 (Fed. Cir. 2020); *see* CIB at 97. Ericsson characterizes the claimed advance as:

> the mobile terminal displays an auto focus guide in response to a first touch on a touch screen and then allows the user to adjust another camera setting in response to a drag operation on the touch screen while maintaining the displayed auto focus guide.

CIB at 97. As explained above, this may be an overly narrow interpretation of claim 1, because the order of the individual operations may not be as rigid as Ericsson suggests. But because the order of operations has not been fully briefed, Ericsson will be given the benefit of the doubt, such that "adjusting a setting while maintaining the displayed auto focus guide" is accepted as the most important part of the advance over the prior art. This asserted advance will also be considered notwithstanding that it may have been waived. *See* RRB at 75 n.26; see also RRB at 81 n.28.

Given the nature of the advance, Ericsson is correct that certain analytic categories may be ruled out. *See* CIB at 97. The invention is not "results-oriented." *Broadband iTV, Inc. v. Amazon.com, Inc.*, 113 F.4th 1359, 1368 (Fed. Cir. 2024). It does not "pre-empt use of [the claimed] approach in all fields." *Bilski v. Kappos*, 561 U.S. 593, 612 (2010). It does not "invok[e] a computer merely as a tool." *Customedia Techs. LLC v. Dish Network Corp.*, 951 F.3d 1359, 1364 (Fed. Cir. 2020). And because Ericsson's own characterization of the advance over the prior art has been accepted, the invention is not characterized "at an impermissibly high level of generality." *Contour IP*, 113 F.4th at 1379-80; *see* CRB at 78.

Ericsson also argues that Respondents primarily rely on *Yu v. Apple Inc.*, 1 F.4th 1040 (Fed. Cir. 2021), for their Section 101 case (*see* CRB at 79), and this is broadly correct for step one of

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Alice (*see* RIB at 133-36). But this is not really pertinent, for two reasons: (1) although *Yu* is also about a camera-related patent, that patent was truly preemptive because the claimed solution to the technical problem was "the abstract idea itself—take one image and 'enhance' it with another" (1 F.4th at 1044); and (2) Respondents also rely on a line of cases about "improving a user's experience while using a computer application" but without "an improvement in computer functionality" (RIB at 135-36). In *IBM Corp. v. Zillow Group, Inc.*, 2022-1861, 2024 WL 89642, at *1 (Fed. Cir. Jan. 9, 2024), for instance, one claim recited a "graphical user interface" comprising certain elements. The Federal Circuit found the claim abstract at *Alice* step one because it did "nothing more than" identify, analyze, and present certain data to a user, and did not "disclose any technical improvement to how computer applications are used." *Id.* at *4. Similarly, in *Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1381 (Fed. Cir. 2019), the claim covered a method of using a graphical user interface to display certain information. The Federal Circuit found the claim abstract at *Alice* step one because it "focused on providing information . . . in a way that helps [users] process information more quickly," and "not on improving computers or technology." *Id.* at 1384; *see also Customedia*, 951 F.3d at 1365 ("software can make non-abstract improvements to computer technology" but it "must be directed to an improvement to the functionality of the computer or network platform itself") (citations and quotation marks omitted).

Two cases on which Ericsson particularly relies, by contrast, imply that improvements to user interfaces can qualify as technical improvements to how computer applications are used. *See* CIB at 104-06; CRB at 79-80. In *Core Wireless*, 880 F.3d at 1362-63, the Federal Circuit held patent-eligible claims covering "an improved user interface for computing devices," in part because the claims "recite a specific improvement over prior systems, resulting in an improved user interface." And in *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1005, 1011 (Fed. Cir.

[redacted]

2018) (citation and ellipses omitted), the Federal Circuit held patent-eligible a claim covering "a computer-implemented method of representing a three-dimensional spreadsheet on a screen display," in part because the claim "recites 'a specific improvement to the way computers operate.'" Ericsson also cites *Contour IP*, 113 F.4th at 1379-80, for the proposition that "a specific technical solution to a real problem that improves the functioning of a device" passes *Alice* step one. CRB at 78; *see* CIB at 99. But although the representative claim in *Contour IP* did require a camera and a display, the Federal Circuit characterized the claim as directed to having a video camera transmit a "low-quality" data stream to a remote device to facilitate adjusting the camera recording in real time. 113 F.4th at 1379-80. *Contour IP* does not focus on an improvement to a user interface, and is therefore not as analogous to the present case as are *Core Wireless* and *Data Engine Techs*.

In short, sometimes a claimed invention involving an improvement to a user interface is patent-eligible, as in *Core Wireless* and *Data Engine Techs*., and sometimes it is not, as in *IBM* and *Trading Techs. Int'l.* Having considered all the case law the parties cite, and the testimony of their experts—which was generally unhelpful—the resolution of Respondents' Section 101 argument boils down to: is the claimed invention more analogous to the ones found patent-eligible, or more analogous to the ones found patent-ineligible? For two reasons, the claimed invention is more like those found patent-ineligible under *Alice* step one.

First, the claimed invention lacks technical specificity. *Data Engine Techs*. provides a useful guidepost, because while that case did find one claim patent-eligible, it found a different but related claim patent-ineligible. *See* 906 F.3d at 1012. The patent-eligible claim (claim 12) covered "a computer-implemented method of representing a three-dimensional spreadsheet on a screen display," while the patent-ineligible claim (claim 1) covered "a method for organizing [a] three-dimensional spreadsheet," with claim 12 being markedly more detailed and specific in its method

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steps. *Id.* at 1005, 1011-12. The Federal Circuit held claim 1 to be abstract because it "generically recites 'associating each of the cell matrices with a user-settable page identifier' and does not recite the specific implementation of a notebook tab interface," as in claim 12. *Id.* at 1012. Claim 1 was therefore "not limited to the specific technical solution and improvement in electronic spreadsheet functionality" that made claim 12 patent-eligible. *Id.*

Similarly, in *Core Wireless* the claims were quite particular. The Federal Circuit identified three notably specific limitations: "a particular manner by which [a claimed feature] must be accessed," a limitation that "restrains the type of data that can be displayed," and "a requirement that the device applications exist in a particular state." 880 F.3d at 1362-63. In combination these limitations "improve[d] the efficiency of using the electronic device" and resulted in "an improvement in the functioning of computers, particularly those with small screens," even though the invention was also "an improved user interface." *Id.* at 1363.

Here, the claimed advance over the prior art is not sufficiently specific, unlike in *Data Engine Techs*. The advance is allowing the user to adjust a camera setting while maintaining the displayed auto focus guide, instead of removing the displayed auto focus guide, with no other technical details. *See* CIB at 97. The problem is "being [un]able to see what you're focusing on while you're adjusting the setting," and the claimed solution is simply maintaining the displayed auto focus guide in the same spot while allowing adjustment of a camera setting. Tr. (Burger) at 877:114-15. Such an invention is "a design choice" claimed at an overly "high degree of generality." *Yu*, 1 F.4th at 1043; Tr. (Burger) at 945:24-946:1. And unlike in *Core Wireless*, the crucial feature is a single limitation that places only one restriction on how the user interface functions. The advance over the prior art may be an improvement to the user experience, but it is at best a trivial "improvement in the functioning of computers." 880 F.3d at 1363.

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Second, the claimed invention is not really "technological" at all, because it seemingly does not solve the asserted technical problem. *Broadband iTV*, 113 F.4th at 1368 ("*Core Wireless* and *Data Engine* require a specific, technological solution to a technological problem"). Again, the technical problem identified by Ericsson is "being [un]able to see what you're focusing on while you're adjusting the setting." Tr. (Burger) at 877:114-15. Maintaining the same focus solves this problem, but merely keeping the auto focus guide in place does not. Of course, maintaining the auto focus guide in the display does identify what the image is focused on, which as noted with regard to obviousness is helpful. But the user presumably already knows that information, so the helpfulness of it is limited, and the more practical solution would be to maintain the focus itself, a requirement not even recited in the claim. And there is reason to doubt that Ericsson has even correctly identified the technical problem, because the specification "does not mention the problem Ericsson identifies"—or, for that matter, the claimed solution. RRB at 76. The closest it comes appears to be in the summary of the preferred embodiment, but it is really not close at all: "adjusting the position of a lens included in the camera [will] finely adjust the focusing." 654 Patent at 2:40-49.

Respondents have thus shown that the asserted claims are directed to patent-ineligible subject matter under *Alice* step one. To pass muster under *Alice* step two, there must be an "inventive concept" when considering the claim elements both individually and "as an ordered combination." *Customedia*, 951 F.3d at 1365 (citation and quotation marks omitted). According to Ericsson, "the inventive concept resides in the combination of functions that the controller is configured to perform." CIB at 108. More precisely, the claim limitations allegedly "recite a specific, discrete implementation" that is "specifically-claimed, not practiced by the prior art, and overcomes a shortcoming of existing touchscreen cameras." *Id.* As explained above, Ericsson is

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entirely mistaken on this; the invention is not sufficiently specific, two of the three claims are anticipated and the other would have been obvious, and the invention apparently does not even solve the asserted technical problem. In contrast, Respondents correctly observe that, whether considered individually or in combination, the claim elements are "long-known, routine, and conventional." RIB at 136; *see Broadband iTV*, 113 F.4th at 1370. The claims do not recite any novel feature of user interfaces, or use known features in unconventional ways, and instead just reorder well-known features in a way that was, as explained, routinely found in the prior art.

This case is thus closely analogous to *Trading Techs*. There the Federal Circuit observed that the "claimed trading screen simply takes the prior art trading screen of Figure 2 and adds P&L values along the axis." 921 F.3d at 1385. Here the claimed advance simply takes one particular prior art camera display screen and adds the already-recited auto focus guide. The asserted claims therefore lack the inventive concept required under *Alice* step two, and so are invalid as unpatentable under Section 101.

VI. LICENSE

Respondents assert that all of Motorola's Accused Products, that is, all the phones accused in this investigation, are licensed. *See* RIB at 137-66; RRB at 83-99. The parties spill a great deal of largely immaterial ink on this issue. *See* RIB at 137-45; CIB at 111-20, 127. The parties do, however, generally agree that the crucial question is whether Motorola's Accused Products meet the standard articulated in the "License Grant by Ericsson" section of the license. *See* RIB at 138, 140, 151-54; CIB at 115-20.

The "Global Patent License Agreement" ("License") was executed in 2011 between complainant Telefonaktiebolaget LM Ericsson and Motorola Mobility Inc. *See* RX-0155C. Although there were previous licenses with similar subject matter, Respondents state that the 2011

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License "copies the template" for the immediately preceding license, so all the relevant provisions are contained in the 2011 version. RIB at 149. The most pertinent passage states:

> 2.4A The license grants provided in Sections 2.1, 2.3 and 2.4 above apply only to Licensed Wireless Mobile Device Products, Licensed Network Products and Licensed IDEN Products in the FIELD of Motorola Mobility as of the Effective Date hereof and commercially reasonable updates or extensions of such Licensed Products. For the purpose of this Section 2.4A, the term "FIELD" means the practice of the Licensed Patents in any field or fields in which Motorola Mobility operates or could reasonably be expected to operate as of the Effective Date. For the avoidance of doubt, in the event of an acquisition of Motorola Mobility by an acquiring party, none of the rights under this Agreement shall apply either to: i) products produced, developed or under development prior to such acquisition by such acquiring party, or by any Affiliates of such acquiring party (hereinafter "Acquirer"); ii) natural evolutions of such previously produced, developed or under development products of such Acquirer that are not commercially reasonable updates or extensions of such Motorola Mobility's Licensed Products; or, iii) products developed or produced by any such Acquirer subsequent to such acquisition, provided that this limitation on products developed by such Acquirer subsequent to such acquisition shall not restrict the offer or sale of Motorola Mobility's Licensed Products or the development, manufacture or sale of commercially reasonable updates or extensions of Motorola Mobility's Licensed Products. Motorola Mobility or its Acquirer shall have the burden of proving that disputed products are Motorola Mobility's Licensed Products and not excluded from the rights under this Agreement as provided in sub-sections i), ii) or iii) of the previous sentence.

RX-0155C at Section 2.4A. The "license grant[]" of Section 2.1, in turn, grants a license to Motorola Mobility to "import" and "sell" the Licensed Wireless Mobile Device Products, and Ericsson does not dispute that it extends to the Asserted Patents. *See id.* at 2.1; CIB at 113-20.

Respondents advance multiple arguments for why all of Motorola's Accused Products are licensed. First, they argue that Motorola's Accused Products use "Licensed Standards" and are in the "FIELD" of Motorola Mobility, and so are "Licensed Products." RIB at 150-53; *see* RRB at 87-89. But this argument ignores Section 2.4A's limitation to products in the "FIELD of Motorola Mobility as of the Effective Date hereof," that is, January 4, 2011, "and commercially reasonable updates or extensions of Motorola Mobility's Licensed Products." RX-0155C at Section 2.4A. The "Licensed Mobile Device Products" are defined elsewhere in the License as including "Wireless Terminals," and as relevant here Motorola Mobility's "FIELD" is and remains smartphones, so the "as of the Effective Date" qualifier would be superfluous unless it modified "Licensed Mobile

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Device Products," rather than "FIELD," as Respondents urge. RX-0155C at 1.19, 1.34; *see* RRB at 91. Furthermore, linguistically it makes little sense to speak of an "update" to a "field . . . in which Motorola Mobility operates," and farther down Section 2.4A repeats the reference to "commercially reasonable updates or extensions of Motorola Mobility's Licensed Products." RX-0155C at Section 2.4A. On balance, then, the expressly licensed smartphones are those "as of the Effective Date," meaning they were commercial products as of the Effective Date.

And the evidence does not show that any of Motorola's Accused Products had been commercialized as of January 2011. The listing of Accused Products within Ericsson's opening posthearing brief cites 17 phones, most with years next to them but none predating 2021, Respondents' demonstrative exhibits show most of Motorola's Accused Products as all introduced no earlier than 2020, and Mr. Ruben Castano, Motorola's vice president of customer experience and design, testified that particular smartphone models generally [redacted] *see* CIB at Ex. 1; RDX-0013 at 13.3-.8; Tr. (Castano) at 396:2-7. Respondents otherwise point to no evidence that any of Motorola's Accused Products include any smartphones that were commercially available in January 2011, nor does it seem likely that Motorola would still be offering any such phones in 2024. Respondents' argument that all of Motorola's Accused Products are licensed without regard to the rest of Section 2.4A of the License is therefore unpersuasive. *See* RRB at 93.

Respondents accordingly argue next that Section 2.4A extends the license to "commercially reasonable updates and extensions of [the] Licensed Products," and that this provision "applies to determining whether a device is made by an Acquirer as opposed to Motorola, not comparing devices sold as of January 4, 2011 to devices it sells today." RIB at 154. The parties refer to the "commercially reasonable updates and extensions" provision as "CRUE," and it is not defined in

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the License. *E.g., id.*; CIB at 116. Despite this lack of definition, the License does not specify what entity may implement CRUE changes to Licensed Products, and, again, uses the language "commercially reasonable updates or extensions of Motorola Mobility's Licensed Products," so Respondents' suggestion that the CRUE provision does not apply to Motorola itself finds no support in the text.

Respondents thus argue, lastly, that all modifications to Motorola's products are CRUE. *See* RIB at 157-63; RRB at 94-97. They hardly present any pertinent evidence, however, and largely focus on technology rather than on what is "commercially reasonable." *See* RIB at 157-63. For example, they assert that "Motorola's 5G smartphones are clearly 'CRUE' because they have the same core functionality as 3G- and 4G-compatible smartphones." *Id.* at 160. They also cite to Mr. Castano's testimony that [redacted] *Id.* at 161 (citing Tr. (Castano) at 418:24-420:21); *see* RRB at 94. This is not especially persuasive, and they otherwise offer no meaningful evidence of commercial reasonableness, as opposed to criticisms of Ericsson's countervailing evidence. *See* RIB at 157-63; RRB at 94-97.

And that countervailing evidence is compelling. Foremost is the simple fact that even under Respondents' version of events, most of Motorola's Accused Products are in the "Moto G" family, which did not even exist until 2013. *See* RDX-0013.4. Most of the others appear to be either Razr or Edge phones which were first commercialized in 2020, and the Thinkphone, which was commercialized in 2023. *See id.* That Motorola's Accused Products are part of product families that were treated as separate and distinct for commercial purposes may not be dispositive, but it weighs very heavily against a finding that their development constituted a mere "update" or "extension" of a phone from 2011. Ericsson also cites to evidence that many of the relevant phones are 5G-compatible, but 5G was not even contemplated in 2011 (*see* CIB at 120, 122 (citing Tr.

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(Petersson) at 39:14-40:17), and expert testimony that the smartphone market has changed dramatically since 2011, including in pricing, data usage, and features, such that "consumer use, value, and demand" is now so different that the smartphones in suit are not CRUE (*see* CIB at 124-25; Tr. (Akemann) at 1036:2-10, 1042:15-21).

Taken as a whole, Respondents have not carried their burden to show that Motorola's Accused Products are commercially reasonable updates or extensions of Motorola phones licensed as of January 4, 2011. Respondents make several other points, only two of which are worth discussing. First, they observe that the License is governed by "the laws of the United Kingdom," and that "a UK court could reject a proposed license interpretation where, as with Ericsson's purported view, it would result in a commercially non-sensical outcome." RIB at 142 (citing RX-0155C at Section 12), 154. This is beside the point, because as Respondents concede, under English law the "objective meaning" of the language of the License is controlling, and the objective meaning of the relevant language in Section 2.4A is clear. RIB at 142 (citations and emphasis omitted). Second, Respondents observe that there is a pending UK court action that will conclusively resolve the disputes under the License, and urge the Commission to delay resolution of the present investigation until after the UK court rules. *See* RIB at 139-41 (citing RX-1291C). But the Commission is under a statutory duty to resolve its investigations expeditiously, so delaying the present case is not appropriate, even if the outcome changes as a result of the UK court action. *See* 19 U.S.C. § 1337(b)(1).

Therefore, Respondents have not shown that they are entitled to a license, or that resolution of their license defense should be delayed.

VII. DOMESTIC INDUSTRY ECONOMIC PRONG

The economic prong of the domestic industry requirement is defined in subsection (a)(3) of Section 337 as follows:

[redacted]

> (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark or mask work concerned --
>
> (A) Significant investment in plant and equipment;
>
> (B) Significant employment of labor or capital; or
>
> (C) Substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3). The economic prong of the domestic industry requirement is satisfied by meeting the criteria of any one of the three factors listed above. Importantly, the Commission has clarified that investments in plant and equipment, labor, and capital that may fairly be considered investments in research and development are eligible for consideration under Subsections (A) and (B), in addition to Subsection (C). *See Certain Solid State Storage Drives, Stacked Electronics Components, and Products Containing Same*, Inv. No. 337-TA-1097, Comm'n Op. at 14 (June 29, 2018) ("*Solid State Storage*").

As discussed in Order No. 32, if the DI Products are defined as the Samsung Galaxy S21, S22, S23, and S24 phones, Ericsson has shown that economic prong has been satisfied under Subsection (A). *See* Order No. 32 at 7, 21. Economic prong was not analyzed when the DI Products were limited to the Galaxy S23, however, and genuine issues of material fact remained under Subsection (B), because if labor and capital are considered together the share of domestic investments as a percentage of global investments falls between [redacted] *See id.* at 21-24.

Ericsson's economic expert, Mr. W. Todd Schoettelkotte, explained that when the DI Products are limited to just the Samsung Galaxy S23, the relevant percentages under both Subsection (A) and Subsection (B) stay roughly the same, with total plant and equipment investment of [redacted] and total labor only investment of [redacted] Tr. (Schoettelkotte) at 377:17-24. Mr. Schoettelkotte opined that such investments are significant, even when comparing domestic labor

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investments to global combined labor and capital investments. *Id.* at 377:17-378:2. Respondents "take no position" on Ericsson's economic prong evidence, and so although for significance the Subsection (B) percentages are somewhat low, overall Ericsson's evidence is sufficient to establish economic prong under both Subsection (A) and Subsection (B), whether considering just the S23 as the DI Product, or the S21, S22, S23, and S24 together. RIB at 165.

VIII. CONCLUSIONS OF LAW

No violations have been proven with respect to either U.S. Patent Nos. 9,313,178 or U.S. Patent No. 10,972,654. Specifically:

A. Claims 16 and 17 of the 178 Patent have not been infringed, no domestic industry product practices either claim, and the economic prong of the domestic industry requirement has been satisfied, except that both claims have been proven invalid.

B. Claims 1, 3, and 16 of the 654 Patent have been infringed and are practiced by a domestic industry product, and the economic prong of the domestic industry requirement has been satisfied, except that all three claims have been proven invalid.

C. No respondent possesses a license to practice any asserted claim.

IX. RECOMMENDED DETERMINATION ON REMEDY AND BOND

The Commission's Rules provide that subsequent to an initial determination on the question of violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, the administrative law judge shall issue a recommended determination concerning the appropriate remedy in the event that the Commission finds a violation of section 337, and the amount of bond to be posted during Presidential review of the Commission action under section 337(j). *See* 19 C.F.R. § 210.42(a)(1)(ii).

[redacted]

The Commission has broad discretion in selecting the form, scope, and extent of the remedy in a section 337 proceeding. *Viscofan, S.A. v. Int'l Trade Comm'n*, 787 F.2d 544, 548 (Fed. Cir. 1986). Under Section 337(d)(1), if the Commission determines as a result of an investigation that there is a violation of section 337, the Commission is authorized to enter either a limited or a general exclusion order. 19 U.S.C. § 1337(d)(1). A limited exclusion order ("LEO") instructs the U.S. Customs and Border Protection ("CBP") to exclude from entry all articles that are covered by the patent at issue and that originate from a named respondent in the investigation. Under section 337(f)(1), the Commission may issue a cease and desist order ("CDO") in addition to, or instead of, an exclusion order. 19 U.S.C. § 1337(f)(1). The Commission generally issues a cease and desist order directed to a domestic respondent when there is a "commercially significant" amount of infringing, imported product in the United States that could be sold, thereby undercutting the remedy provided by an exclusion order. *See Certain Crystalline Cefadroxil Monohydrate*, Inv. No. 337-TA-293, USITC Pub. 2391, Comm'n Op. on Remedy, the Public Interest and Bonding at 37-42 (June 1991); *Certain Condensers, Parts Thereof and Prods. Containing Same, Including Air Conditioners for Automobiles*, Inv. No. 337-TA-334 (Remand), Comm'n Op. at 26-28 (Sept. 10, 1997). Additionally, during the 60-day period of Presidential review under 19 U.S.C. § 1337(j), "articles directed to be excluded from entry under subsection (d) . . . shall . . . be entitled to entry under bond prescribed by the Secretary in an amount determined by the Commission to be sufficient to protect the complainant from any injury." *See* 19 U.S.C. § 1337(j)(3).

Respondents request deferral of any remedy until after their UK court action resolves the parties' license dispute, but as explained above this does not justify delay by the Commission. *See* RIB at 166-67. Respondents also request a carve-out in any LEO for warranty-based maintenance and service. *See id.* at 167. Ericsson takes no position on this (*see* CRB at 95-96), and the record

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includes warranty agreements that may justify a carve-out (*see, e.g.*, RX-1188 through RX-1194). Warranty carve-outs, however, must be considered as part of the public interest analysis, and that has not been delegated in this investigation. *See Certain Cloud-Connected Wood Pellet Grills and Components Thereof*, Inv. No. 337-TA-1237, Comm'n Op. at 11 n.9 (May 24, 2022). It is therefore my recommendation that if any violation is found the Commission should issue its standard LEO.

Respondents do not dispute that they maintain a commercially significant inventory of Accused Products in the U.S., and the evidence shows that the value of that inventory was approximately [redacted] as of April 2024. *See* JX-0013C at ¶ 9; CX-0289C at tab Product List; CX-1698C at tab Good units. It is therefore my recommendation that if any violation is found the Commission should issue a CDO.

Ericsson does not seek a bond, so no bond is recommended. *See* CIB at 138; RIB at 168.

X. INITIAL DETERMINATION AND ORDER

Based on the foregoing,[2] it is my Initial Determination that there is no violation of Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain electronic devices, including mobile phones, tablets, laptops, components thereof, and products containing the same that infringe one or more claims of U.S. Patent Nos. 9,313,178 and 10,972,654.

This Initial Determined is certified to the Commission, together with the record of the hearing in this investigation consisting of the following: the transcript of the evidentiary hearing,

[2] All matters raised by the parties have been considered, and if they have not been discussed in this Initial Determination they have been determined to be irrelevant or meritless.

[redacted]

with appropriate corrections as may hereafter be ordered; and the exhibits accepted into evidence in this investigation.[3]

Pursuant to 19 C.F.R. § 210.42(h), this Initial Determination shall become the determination of the Commission sixty (60) days after the date of service of the Initial Determination, unless a party files a petition for review of the Initial Determination within twelve (12) days after service of the Initial Determination pursuant to 19 C.F.R. § 210.43(a) or the Commission, pursuant to 19 C.F.R. § 210.44, orders on its own motion, a review of the Initial Determination or certain issues therein. Any issue or argument not raised in a petition for review, or response thereto, will be deemed to have been abandoned and may be disregarded by the Commission in reviewing the Initial Determination pursuant to 19 C.F.R. § 210.43(b) and (c).

[3] The pleadings of the parties filed with the Secretary need not be certified as they are already in the Commission's possession in accordance with Commission rules.

[redacted]

Confidentiality Notice:

This Initial Determination is being issued as confidential, and a public version will be issued pursuant to Commission Rule 210.5(f). Within seven (7) days of the date of this Initial Determination, the parties shall jointly submit: (1) a proposed public version of this opinion with any proposed redactions bracketed in red; and (2) a written justification for any proposed redactions specifically explaining why the piece of information sought to be redacted is confidential and why disclosure of the information would be likely to cause substantial harm or likely to have the effect of impairing the Commission's ability to obtain such information as is necessary to perform its statutory functions.[4]

SO ORDERED.

Cameron Elliot
Administrative Law Judge

[4] Under Commission Rules 210.5 and 201.6(a), confidential business information includes: information which concerns or relates to the trade secrets, processes, operations, style of works, or apparatus, or to the production, sales, shipments, purchases, transfers, identification of customers, inventories, or amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or other organization, or other information of commercial value, the disclosure of which is likely to have the effect of either impairing the Commission's ability to obtain such information as is necessary to perform its statutory functions, or causing substantial harm to the competitive position of the person, firm, partnership, corporation, or other organization from which the information was obtained, unless the Commission is required by law to disclose such information. *See* 19 C.F.R. § 201.6(a). Thus, to constitute confidential business information the disclosure of the information sought to be designated confidential must likely have the effect of either: (1) impairing the Commission's ability to obtain such information as is necessary to perform its statutory functions; or (2) causing substantial harm to the competitive position of the person, firm, partnership, corporation, or other organization from which the information was obtained.

CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the parties listed have entered an appearance in the above captioned investigation, and a copy of the PUBLIC CERTIFICATE OF SERVICE was served upon the following parties via first class mail and air mail where necessary.

Document	Security	Document Type	Official Rec'd	Title
837977	Public	ID/RD - Final on Violation	11/25/2024 12:47 PM	Initial Determination on Violation of Section 337 and Recommended Determination on Remedy and Bond

Service Date: November 25, 2024

/s

Lisa R. Barton
U.S. International Trade Commission
500 E Street, S.W.
Suite 112
Washington, D.C. 20436

Service Date: November 25, 2024 PDF Generated on: November 25, 2024

CERTIFICATE OF SERVICE

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